



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No. VA0025020
Effective Date: February 21, 2014
Expiration Date: January 31, 2019

AUTHORIZATION TO DISCHARGE UNDER THE VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM

AND

THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto, the following owner is authorized to discharge in accordance with the information submitted with the permit application, and with this permit cover page, Parts I and II of this permit as set forth herein.

Owner Name: Western Virginia Water Authority
Facility Name: Western Virginia Water Authority Water Pollution Control Plant
City: Roanoke
County: NA
Facility Location: 1502 Brownlee Avenue, SE, Roanoke, Virginia

The owner is authorized to discharge to the following receiving stream:

Stream: Roanoke River
River Basin: Roanoke River
River Subbasin: Roanoke River
Section: 6
Class: IV
Special Standards: pH (6.5 S.U. – 9.5 S.U.)

A handwritten signature in black ink, appearing to read "Robert J. Weld".

Robert J. Weld
Blue Ridge Regional Office
Regional Office Director

2/20/2014
Date

A. Limitations and Monitoring Requirements

1. During the period beginning with the permit's effective date and lasting until the issuance of the Certificate to Operate the 62 MGD facility or the expiration date, whichever comes first, the permittee is authorized to discharge from outfall number 001. This discharge shall be limited and monitored as specified below:

| Effluent Characteristic | <u>DISCHARGE LIMITATIONS</u> | | | | <u>MONITORING REQUIREMENTS</u> | |
|---|------------------------------|--------------------|----------|------------|--------------------------------|-------------|
| | Monthly Average | Weekly Average | Minimum | Maximum | Frequency | Sample Type |
| Flow (MGD) ^a | NL | NA | NA | NL | Continuous | TIRE |
| pH (Standard Units) | NA | NA | 6.5 | 9.0 | 1/Day | Grab |
| BOD ₅ ^{b,f} | 5 mg/L 1040 kg/d | 7.5 mg/L 1561 kg/d | NA | NA | 1/Day | 24 HC |
| Total Suspended Solids ^{b,f} | 5.0 mg/L 1040 kg/d | 10 mg/L 2081 kg/d | NA | NA | 1/Day | 24 HC |
| Total Suspended Solids (total monthly loading) ^c | NA | NA | NA | NL tons | 1/Month | Calculated |
| Total Suspended Solids (calendar-year-to-date) ^c | NA | NA | NA | NL tons | 1/Month | Calculated |
| Total Suspended Solids (tons/calendar year) ^c | NA | NA | NA | 472.2 tons | 1/Year | Calculated |
| Total Residual Chlorine (TRC) ^{b,c} | 0.0026 mg/L | 0.0028 mg/L | NA | NA | 1/ 2 Hours | Grab |
| Dissolved Oxygen | NA | NA | 6.0 mg/L | NA | 1/Day | Grab |
| Phosphorus, Total ^b | 0.20 mg/L 41 kg/d | 0.30 mg/L 62 kg/d | NA | NA | 1/Day | 24 HC |
| Temperature | NA | NA | NA | NL °C | 1/Day | IS |
| <i>Escherichia coli</i> (N/100 ml) | 126 | NA | NA | NA | 3 Days/Week | Grab |
| | (geometric mean) | | | | (between 10am-4pm) | |
| Total Kjeldahl Nitrogen (Jan. – March) ^b | 4.0 mg/L 832 kg/d | 5.0 mg/L 1040 kg/d | NA | NA | 1/Day | 24 HC |
| Total Kjeldahl Nitrogen (April – Sept.) ^b | 2.0 mg/L 416 kg/d | 3.0 mg/L 624 kg/d | NA | NA | 1/Day | 24 HC |
| Total Kjeldahl Nitrogen (Oct. – Dec.) ^b | 4.0 mg/L 832 kg/d | 4.6 mg/L 957 kg/d | NA | NA | 1/Day | 24 HC |

NL = No Limitation with monitoring required NA = Not Applicable 24 HC= 24 hour composite IS = immersion stabilization TIRE = totalizing, indicating, recording equipment

- The design flow of this treatment facility is 55 MGD. See Part I.C.1 for additional flow requirements.
- See Part I.C.10 for quantification levels and reporting requirements.
- See Part I.B for additional TRC limitations and monitoring requirements.
- See Part I.C.9 for additional monitoring requirements.
- See Part I.C.12 for total suspended solids monthly loading and annual loading calculations.
- At least 85% removal for BOD₅ and TSS shall be attained for this effluent.
- There shall be no discharge of floating solids or visible foam in other than trace amounts.

A. Limitations and Monitoring Requirements

2. During the period beginning with the issuance of the Certificate to Operate for the 62 MGD facility and lasting until the permit's expiration date, the permittee is authorized to discharge from outfall number 001. This discharge shall be limited and monitored by the permittee as specified below:

| <u>Effluent Characteristic</u> | <u>DISCHARGE LIMITATIONS</u> | | | | <u>MONITORING REQUIREMENTS</u> | |
|---|------------------------------|-----------------------|----------------|----------------|-----------------------------------|--------------------|
| | <u>Monthly Average</u> | <u>Weekly Average</u> | <u>Minimum</u> | <u>Maximum</u> | <u>Frequency</u> | <u>Sample Type</u> |
| Flow (MGD) ^a | NL | NA | NA | NL | Continuous | TIRE |
| pH (Standard Units) | NA | NA | 6.5 | 9.0 | 1/Day | Grab |
| BOD ₅ ^{b,f} | 5 mg/L 1173 kg/d | 7.5 mg/L 1760 kg/d | NA | NA | 1/Day | 24 HC |
| Total Suspended Solids ^{b,f} | 5.0 mg/L 1173 kg/d | 10 mg/L 2346 kg/d | NA | NA | 1/Day | 24 HC |
| Total Suspended Solid (total monthly loading) ^e | NA | NA | NA | NL tons | 1/Month | Calculated |
| Total Suspended Solids (calendar-year-to-date) ^e | NA | NA | NA | NL tons | 1/Month | Calculated |
| Total Suspended Solids (tons/calendar year) ^e | NA | NA | NA | 472.2 tons | 1/Year | Calculated |
| Total Residual Chlorine (TRC) ^{b,c} | 0.0025 mg/L | 0.0026 mg/L | NA | NA | 1/ 2 Hours | Grab |
| Dissolved Oxygen | NA | NA | 6.0 mg/L | NA | 1/Day | Grab |
| Phosphorus, Total ^b | 0.20 mg/L 47 kg/d | 0.30 mg/L 70 kg/d | NA | NA | 1/Day | 24 HC |
| Temperature | NA | NA | NA | NL °C | 1/Day | IS |
| <i>Escherichia coli</i> (N/100 ml) | 126 (geometric mean) | NA | NA | NA | 3 Days/Week (between 10am-4pm) | Grab |
| Total Kjeldahl Nitrogen (Jan. – March) ^b | 4.0 mg/L 939 kg/d | 5.0 mg/L 1173 kg/d | NA | NA | 1/Day | 24 HC |
| Total Kjeldahl Nitrogen (April – Sept.) ^b | 2.0 mg/L 469 kg/d | 3.0 mg/L 704 kg/d | NA | NA | 1/Day | 24 HC |
| Total Kjeldahl Nitrogen (Oct. – Dec.) ^b | 4.0 mg/L 938 kg/d | 4.6 mg/L 1079 kg/d | NA | NA | 1/Day | 24 HC |

NL = No Limitation with monitoring required NA = Not Applicable 24 HC= 24 hour composite IS = immersion stabilization TIRE = totalizing, indicating, recording equipment

- The design flow of this treatment facility is 62 MGD. See Part I.C.1 for additional flow requirements.
- See Part I.C.10 for quantification levels and reporting requirements.
- See Part I.B for additional TRC limitations and monitoring requirements.
- See Part I.C.9 for additional monitoring requirements.
- See Part I.C.12 for total suspended solids monthly loading and annual loading calculations.
- At least 85% removal for BOD₅ and TSS must be attained for this effluent.
- There shall be no discharge of floating solids or visible foam in other than trace amounts.

A. Limitations and Monitoring Requirements

3. During the period beginning with permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge from storm water outfall numbers 008 and 009. This discharge shall be limited and monitored by the permittee as specified below:

| <u>Effluent Characteristic</u> | <u>DISCHARGE LIMITATIONS</u> | | | | <u>MONITORING REQUIREMENTS</u> | |
|---------------------------------------|------------------------------|-----------------------|----------------|----------------|--------------------------------|--------------------|
| | <u>Monthly Average</u> | <u>Weekly Average</u> | <u>Minimum</u> | <u>Maximum</u> | <u>Frequency^b</u> | <u>Sample Type</u> |
| Total Suspended Solids ^{a,c} | NA | NA | NA | 100 mg/L | 1/ 6 Months | Grab |
| Total Kjeldahl Nitrogen ^a | NA | NA | NA | NL mg/L | 1/ 6 Months | Grab |
| Flow (MG) | NA | NA | NA | NL | 1/ 6 Months | Estimate |

NL = No Limitation with monitoring required NA = Not Applicable

- a. See Part I.C.10 for quantification levels and reporting requirements.
- b. Monitoring shall be based on a calendar year. The first sampling data for the period from July 1, 2014 through December 31, 2014 shall be due no later than January 10, 2015.
- c. In addition to the analytical results, the permittee shall provide the date and duration (in hours) of the storm event(s) sampled; rainfall total (in inches) of the storm event that generated the sampled runoff; and the duration between the storm event sampled and the end of the previous measurable storm event. A measurable storm event is defined as a storm event that results in an actual discharge from the site.
- d. See Part I.G.2 for additional storm water monitoring requirements.
- e. A total suspended solids (TSS) Total Maximum Daily Load wasteload allocation of 34.17 tons per year has been assigned to the storm water discharges from this facility. This maximum value is a decision criterion of 100 mg/L used to track compliance with the TSS TMDL. If this decision criterion is exceeded, refer to Part I.G.2.i(2) and Part I.G.2.i(3) for corrective actions required.
- f. There shall be no discharge of waste, garbage, or floating debris in other than trace amounts from the drainage area associated with industrial activity.
- g. There shall be no discharge of process wastewater from this outfall.

A. Limitations and Monitoring Requirements

4. During the period beginning with permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge from storm water outfall number 011. This discharge shall be limited and monitored by the permittee as specified below:

| <u>Effluent Characteristic</u> | <u>DISCHARGE LIMITATIONS</u> | | | | <u>MONITORING REQUIREMENTS</u> | |
|---------------------------------------|------------------------------|-----------------------|----------------|----------------|--------------------------------|--------------------|
| | <u>Monthly Average</u> | <u>Weekly Average</u> | <u>Minimum</u> | <u>Maximum</u> | <u>Frequency^b</u> | <u>Sample Type</u> |
| Total Suspended Solids ^{a,e} | NA | NA | NA | 100 mg/L | 1/ 6 Months | Grab |
| Flow (MG) | NA | NA | NA | NL | 1/ 6 Months | Estimate |

NL = No Limitation with monitoring required NA = Not Applicable

- a. See Part I.C.1 for quantification levels and reporting requirements.
- b. Monitoring shall be based on a calendar year. The first sampling data for the period from July 1, 2014 through December 31, 2014 shall be due no later than January 10, 2015.
- c. In addition to the analytical results, the permittee shall provide the date and duration (in hours) of the storm event(s) sampled; rainfall total (in inches) of the storm event that generated the sampled runoff; and the duration between the storm event sampled and the end of the previous measurable storm event. A measurable storm event is defined as a storm event that results in an actual discharge from the site.
- d. See Part I.G.2 for additional storm water monitoring requirements.
- e. A total suspended solids (TSS) Total Maximum Daily Load wasteload allocation of 34.17 tons per year has been assigned to the storm water discharges from this facility. This maximum value is a decision criterion of 100 mg/L used to track compliance with the TSS TMDL. If this decision criterion is exceeded, refer to Part I.G.2.i(2) and Part I.G.2.i(3) for corrective actions required.
- f. There shall be no discharge of waste, garbage, or floating debris in other than trace amounts from the drainage area associated with industrial activity.
- g. There shall be no process water discharge from this outfall.

A. Limitations and Monitoring Requirements

5. **Class B Biosolids** — During the period beginning with the permit's effective date and lasting until the permit's expiration date, and in accordance with 9 VAC 25-31-420-720, 9 VAC 25-32-303 et seq., and the limitations, conditions and requirements set forth in this permit, the permittee is authorized to generate biosolids for land application and manage the pollutants in the biosolids for land application and manage the pollutants in the biosolids generated under the authority of this permit.

All biosolids samples shall be collected and analyzed in accordance with Title 40 of the Code of Federal Regulations, Part 503 and 136. Analyses shall be conducted by a VELAP accredited environmental laboratory. The permittee shall ensure that all biosolids generated and provided for land application through this permit are monitored in accordance with the monitoring requirements in Part I.A.5.

a. Sewage Sludge Annual Production Monitoring

The permittee shall report the annual total amount of sludge produced (in dry metric tons) and annual amount of biosolids (in dry metric tons) distributed for land application.

- b. Metals Limitations -- Pollutants in biosolids that are generated and provided to a land applier under the authority of this permit shall be monitored and limited as specified below. Biosolids shall not be provided for land application if the concentration of any pollutant in the biosolids exceeds the ceiling limitation of that pollutant.

| <u>PARAMETERS</u> ⁽¹⁾ | <i>PC / CPLR LIMITATIONS</i> | <i>CEILING LIMITATIONS</i> | <i>MONITORING REQUIREMENTS</i> | |
|----------------------------------|---|---|--------------------------------|-------------|
| | <u>Monthly Average (mg/kg) ⁽²⁾</u> | <u>Maximum (mg/kg) ⁽²⁾</u> | Frequency | Sample Type |
| Total Arsenic | 41 | 75 | 1/ 2 Months | Composite |
| Total Cadmium | 39 | 85 | 1/ 2 Months | Composite |
| Total Copper | 1,500 | 4,300 | 1/ 2 Months | Composite |
| Total Lead | 300 | 840 | 1/ 2 Months | Composite |
| Total Mercury | 17 | 57 | 1/ 2 Months | Composite |
| Total Molybdenum | NL ⁽³⁾ | 75 | 1/ 2 Months | Composite |
| Total Nickel | 420 | 420 | 1/ 2 Months | Composite |
| Total Selenium | 100 | 100 | 1/ 2 Months | Composite |
| Total Zinc | 2,800 | 7,500 | 1/ 2 Months | Composite |

NL = No limitations, monitor and report

A. Limitations and Monitoring Requirements

5. **Class B Biosolids**

- (1) All constituents are subject to cumulative pollutant loading rates (CPLR), pollutant concentrations (PC), and ceiling limits. PC biosolids contain the constituents identified above at concentrations below the monthly average specified in Part I.A.5.b. CPLR biosolids contain the constituents identified above at concentrations above the monthly average and each sample must be below the maximum concentration specified in Part I.A.5.b.
 - (2) All limits and criteria are expressed on a dry weight basis.
 - (3) The monthly average concentration for molybdenum is currently under study by USEPA. Research suggests that a monthly average molybdenum concentration below 40 mg/kg may be appropriate to reduce the risk of copper deficiency in grazing animals.
- c. Pathogen Reduction and Vector Attraction Reduction (VAR) Requirements – Biosolids generated and provided to a land applier under this permit shall be treated to meet a Class B Pathogen Reduction Alternative and one VAR Option 1 - 8 prior to delivery to a land application site. The biosolids shall be monitored and limited in accordance with the treatment options selected and used by the generator, as identified in the table below. The permittee will have a system in place to verify that all biosolids generated and provided to a land applier under this permit meet these pathogen reduction and VAR standards and treatment requirements.

| TREATMENT OPTION | | | |
|--------------------------------|---|--|----------------------------|
| PATHOGEN REDUCTION ALTERNATIVE | PROCESS TO SIGNIFICANTLY REDUCE PATHOGENS (PSRP) OPTION | CLASS B PATHOGEN REDUCTION & VAR TREATMENT & STANDARDS | MONITORING REQUIREMENTS |
| 1 | NA | Fecal coliform monitoring: <2,000,000 MPN/gm or <2,000,000 CFU/gm, geometric mean of 7 samples (9 VAC25-31-710.B.3.) | 1 /2 Months ⁽¹⁾ |
| VAR Option 1 | | 38% Reduction of volatile solids by digestion (9VAC25-31-720.B.1.) | 1/ 2 Months ⁽¹⁾ |

NA = Not applicable

- (1) Between sampling events, operating records must demonstrate that the wastewater treatment plant (WWTP) is operating at a performance level known to meet pathogen reduction and VAR standards.
- (2) Process monitoring must be sufficient to demonstrate compliance with PSRP and VAR treatment requirements.
- (3) Alternative methods may be used but must comply with 9 VAC 25-31-710 (Pathogen Reduction) and 9 VAC 25-31-720 (Vector Attraction Reduction). In accordance with Part I.D.6, changes in Sludge Management Plan submitted as part of VPDES Permit Application shall be submitted for review and approval.

A. Limitations and Monitoring Requirements5. **Class B Biosolids**

- d. Biosolids Characteristics -- Biosolids that are generated and provided to a land applier under the authority of this permit shall be monitored and limited as specified below:

| PARAMETERS | LIMITATIONS | | MONITORING REQUIREMENTS | |
|--|-----------------|---------------------|-------------------------|-------------|
| | Monthly Average | Minimum and Maximum | Frequency | Sample Type |
| Percent Solids (%) | NL | NA | 1/ 2 Months | Composite |
| Volatile Solids (%) | NL | NA | 1/ 2 Months | Composite |
| Total Kjeldahl Nitrogen (mg/kg) ⁽¹⁾ | NL | NA | 1/ 2 Months | Composite |
| Ammonium Nitrogen (mg/kg) ⁽¹⁾ | NL | NA | 1/ 2 Months | Composite |
| Nitrate Nitrogen (mg/kg) ⁽¹⁾ | NL | NA | 1/ 2 Months | Composite |
| Total Phosphorus (mg/kg) ⁽¹⁾ | NL | NA | 1/ 2 Months | Composite |
| Total Potassium (mg/kg) ⁽¹⁾ | NL | NA | 1/ 2 Months | Composite |
| pH (S.U.) | NA | NL | 1/ 2 Months | Composite |

NL = No Limit, monitor and report

NA = Not applicable

(1) Expressed on a dry weight basis.

B. Additional Chlorine Limitations and Monitoring Requirements

1. The permittee shall monitor TRC at the outlet of each operating chlorine contact at two hour intervals by grab sample.
2. No TRC sample collected at the outlet of either operating contact tank shall be less than 0.50 mg/L [DMR Code # 213]. A sample collected at the outlet of the chlorine contact tank within 15 minutes following any internal TRC excursion that results in less than 126 colonies/100 mL will be considered as in compliance with the 0.50 mg/L minimum internal TRC requirement.
3. If dechlorination facilities exist all samples above shall be collected prior to dechlorination.
4. If chlorine disinfection is not used, the permittee shall discontinue TRC monitoring requirements in Part I.A and Part I.B.1 of the permit. Effluent *E. coli* shall be limited and monitored by the permittee as specified below:

| | DISCHARGE LIMIT | MONITORING REQUIREMENTS | |
|----------------|--------------------------------------|---------------------------------|--------------------|
| | <u>Monthly Ave</u> | <u>Frequency</u> | <u>Sample Type</u> |
| <i>E. coli</i> | 126 cfu / 100 mL (geometric mean) | 1/Day between 10 am and 4 pm | Grab |

C. Special Conditions**1. 95% Capacity Reopener**

A written notice and a plan of action for ensuring continued compliance with the terms of this permit shall be submitted to the DEQ Blue Ridge Regional Office when the monthly average flow influent to the sewage treatment plant reaches 95 percent of the design capacity authorized in this permit for each month of any three consecutive month period. The written notice shall be submitted within 30 days and the plan of action shall be received at the DEQ Blue Ridge Regional Office no later than 90 days from the third consecutive month for which the flow reached 95 percent of the design capacity. The plan shall include the necessary steps and a prompt schedule of implementation for controlling any current or reasonably anticipated problem resulting from high influent flows. Failure to submit an adequate plan in a timely manner shall be deemed a violation of this permit.

C. Special Conditions

2. Indirect Dischargers

The permittee shall provide adequate notice to the Department of the following:

- a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Section 301 or 306 of the Clean Water Act and the State Water Control Law if it were directly discharging those pollutants; and
- b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of this permit.

Adequate notice shall include information on (i) the quality and quantity of effluent introduced into the treatment works, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the treatment works.

3. CTC, CTO Requirement

The permittee shall, in accordance with the DEQ Sewage Collection and Treatment Regulation (9 VAC 25-790), obtain a Certificate to Construct (CTC), and Certificate to Operate (CTO) from the DEQ Blue Ridge Regional Office. The design plans shall be submitted by the design engineer and owner to the DEQ Regional Permit Manager prior to construction of wastewater treatment works and operating the treatment works. Non-compliance with the CTC or CTO shall be deemed a violation of the permit.

4. Operations and Maintenance Manual Requirement

The permittee shall maintain a current Operations and Maintenance (O&M) Manual for the treatment that is in accordance with the Virginia Pollutant Discharge Elimination System Regulations, 9 VAC 25-31 and the Sewage Collection and Treatment Regulations, 9 VAC 25-790.

The O&M Manual and subsequent revisions shall include the manual effective date and meet Part II.K.2 and Part II.K.4 signatory requirements of the permit. Any changes in the practices and procedures followed by the permittee shall be documented in the O&M Manual within 90 days of the effective date of the changes. The permittee shall operate the treatment works in accordance with the O&M Manual and shall make

C. Special Conditions

4. **Operations and Maintenance Manual Requirement (Continued)**

the O&M Manual available to Department personnel for review during facility inspections. Within 30 days of a request by DEQ, the current O&M Manual shall be submitted to the DEQ Regional Office for review and approval.

This manual shall detail the practices and procedures which will be followed to ensure compliance with the requirements of the permit. This manual shall include, but not necessarily be limited to, the following items, as appropriate:

- a. Permitted outfall locations and techniques to be employed in the collection, preservation, and analysis of effluent, storm water, and sludge samples;
- b. Procedures for measuring and recording the duration and volume of treated wastewater discharged;
- c. Discussion of Best Management Practices, if applicable;
- d. Procedures for handling, storing, and disposing of all wastes, fluids, and pollutants that will prevent these materials from reaching state waters;
- e. Discussion of treatment works design, treatment works operation, routine preventative maintenance of units within the treatment works, critical spare parts inventory, and record keeping;
- f. A plan for the management and/or disposal of waste solids and residues.
- g. Hours of operation and staffing requirements for the plant to ensure effective operation of the treatment works and maintain permit compliance;
- h. List of facility, local, and state contacts; and
- i. Procedures for reporting and responding to any spills/overflows/treatment works upsets.

5. **Licensed Operator Requirement**

The permittee shall employ or contract at least one Class I licensed wastewater works operator for this facility. The license shall be issued in accordance with Title 54.1 of

C. Special Conditions

5. **Licensed Operator Requirement (Continued)**

the Code of Virginia and the regulations of the Board for Waterworks and Wastewater Works Operators. The permittee shall notify the Department in writing whenever he is not complying, or has ground for anticipating he will not comply with this requirement. The notification shall include a statement of reasons and a prompt schedule for achieving compliance.

6. **Reliability Class**

The permitted treatment works shall meet Reliability Class I requirements.

7. **Closure Plan**

If the permittee plans an expansion or upgrade to replace the existing treatment works, or if the facility is permanently closed, the permittee shall submit to the DEQ Blue Ridge Regional Office a closure plan for the existing treatment works. The plan shall address the following information at a minimum: Verification or elimination of sources and/or alternate treatment scheme; treatment, removal and final disposition of residual wastewater and solids; removal/demolition/disposal of structures, equipment, piping and appurtenances; site grading and erosion and sediment control; restoration of site vegetation; access control; fill materials; and proposed land use (post-closure) of the site. The plan should contain proposed dates for beginning and completion of the work. The plan must be approved by the DEQ prior to implementation. Under an approved closure plan, the permittee may continue discharging until the effluent no longer meets the permit limits or the permit expires, whichever occurs first.

8. **Total Maximum Daily Load (TMDL) Reopener**

This permit shall be modified or alternatively revoked and reissued if any approved wasteload allocation procedure, pursuant to Section 303(d) of the Clean Water Act, imposes wasteload allocations, limits, or conditions on the facility that are not consistent with the permit requirements.

9. **Water Quality Criteria Monitoring**

The permittee shall monitor the effluent at outfall 001 for the substances noted in Attachment A of the permit according to the indicated analysis number, quantification level, sample type, and frequency. Monitoring data for this condition shall be collected three times during the permit term after **December 31, 2016**. At least two of

C. Special Conditions**9. Water Quality Criteria Monitoring (Continued)**

the samples must have been taken no fewer than 4 months and no more than 8 months apart. The DEQ will use these data for making specific permit decisions in the future. This permit may be modified or, alternatively, revoked and reissued to incorporate limits for any of the substances listed in Attachment A.

Using the Attachment as the reporting form, the non-PCB data shall be submitted by the dates in the table below. Laboratory data summary sheets and chain of custody sheets shall be submitted with Attachment A of the permit to document the laboratory methods used, practicable quantification levels, field collection, and preservation methods. Monitoring and analysis shall be conducted in accordance with 40 CFR Part 136 or alternative EPA approved methods. It is the responsibility of the permittee to ensure that proper QA/QC protocols are followed during the sample gathering and analytical procedures.

| <u>Data</u> | <u>Compliance Sample Collection Periods</u> | <u>Data Submission Dates</u> |
|-------------|---|----------------------------------|
| Sample 1 | By 04/30/17 | 05/10/17 |
| Sample 2 | By 08/31/17 | 09/10/17 |
| Sample 3 | By 12/31/17 | 01/10/18 |

PCB monitoring shall be completed and submitted no later than **August 4, 2018**.

10. Compliance Reporting

- a. The quantification levels (QLs) shall be less than or equal to the following concentrations:

| <u>Effluent Characteristic</u> | <u>Quantification Level</u> |
|--------------------------------|-----------------------------|
| BOD ₅ | 5 mg/L |
| Chlorine | 0.10 mg/L |
| Phosphorus, Total | 0.05 mg/L |
| Total Kjeldahl Nitrogen | 0.50 mg/L |
| Total Suspended Solids | 1.0 mg/L |

The QL is defined as the lowest concentration used to calibrate a measurement system in accordance with the procedures published for the method. It is the responsibility of the permittee to ensure that proper quality assurance/quality control (QA/QC) protocols are followed during the sampling and analytical

C. Special Conditions

10. **Compliance Reporting (Continued)**

procedures. QA/QC information shall be documented to confirm that appropriate analytical procedures have been used and the required QLs have been attained. The permittee shall use any method in accordance with Part II.A of this permit.

b. Monthly Average

Compliance with the monthly average limitations and/or reporting requirements for the parameters listed in subsection a. of this permit condition shall be determined as follows: All concentration data below the QL used for the analysis (QL must be less than or equal to the QL listed in a. above) shall be treated as zero. All concentration data equal to or above the QL used for the analysis shall be treated as it is reported. An arithmetic average shall be calculated using all reported data for the month, including the defined zeros. This arithmetic average shall be reported on the Discharge Monitoring Report (DMR) as calculated. If all data are below the QL used for the analysis, then the average shall be reported as "<QL". If reporting for quantity is required on the DMR and the reported monthly average concentration is <QL, then report "<QL" for the quantity. Otherwise use the reported concentration data (including the defined zeros) and flow data for each sample day to determine the daily quantity and report the monthly average of the calculated daily quantities.

c. Weekly Average

Compliance with the weekly average limitations and/or reporting requirements for the parameters listed in subsection a. of this permit condition shall be determined as follows: All concentration data below the QL used for the analysis (QL must be less than or equal to the QL listed in a. above) shall be treated as zero. All concentration data equal to or above the QL used for the analysis shall be treated as reported. An arithmetic average shall be calculated using all reported data, including the defined zeros, collected within each complete calendar week and entirely contained within the reporting month. The maximum value of the weekly averages thus determined shall be reported on the DMR. If all data are below the QL used for the analysis, then the weekly average shall be reported as "<QL". If reporting for quantity is required

C. Special Conditions

10. **Compliance Reporting (Continued)**

on the DMR and the reported weekly average concentration is <QL, then report "<QL" for the quantity. Otherwise use the reported concentration data (including the defined zeros) and flow data for each sample day to determine the daily quantity and report the maximum weekly average of the calculated daily quantities.

d. **Single Datum**

Any single datum required shall be reported as "<QL" if it is less than the QL used for the analysis (QL must be less than or equal to the QL listed in a. above). Otherwise the numerical value shall be reported.

e. **Significant Digits**

The permittee shall report at least the same number of significant digits as the permit limit for a given parameter. Regardless of the rounding convention used by the permittee (i.e., 5 always rounding up to or to the nearest even number), the permittee shall use the convention consistently, and shall ensure that consulting laboratories employed by the permittee use the same convention.

11. **Lagoon Structural Integrity and Watertight Integrity Reevaluation**

- a. The permittee shall complete a structural integrity and a watertight integrity evaluation of the five sludge storage lagoons in accordance with the approved protocols and submit a report of findings by **August 10, 2017**. Any revisions to the approved protocol shall be submitted for approval prior to the evaluation. Should the results of the evaluation, as defined by the protocol, indicate a reasonable potential for a lagoon failure, the report shall include a corrective action and a schedule to address the identified deficiencies in lagoon structural integrity. Should the watertight integrity evaluation reveal evidence of seepage through the berm(s), upon written notification by the Regional Director, the permittee shall within 60 days of such notification submit for approval a plan and schedule for conducting a ground water risk assessment. This plan shall address the methodology for identifying potential receptors, exposure pathways, exposure levels, and the associated potential risks to receptors. As an alternative, the permittee may submit a protocol for monitoring ground water quality impacts due to lagoon leakage from the sludge storage lagoon location.

C. Special Conditions

11. **Lagoon Structural Integrity and Watertight Integrity Reevaluation (Continued)**

- b. If the ground water risk assessment option is chosen, the permittee shall submit a report of the results to the DEQ Blue Ridge Regional Office within 180 days of approval of the protocol.
- c. If the ground water monitoring program option is selected, then the following requirements shall apply:
 - (1) Within 90 days of approval of the protocol, the permittee utilizing the approved protocol, shall submit valid ground water monitoring data. Thereafter, the permittee shall submit ground water monitoring data in accordance with the protocol schedule.
 - (2) Should these ground water monitoring data indicate contamination to ground water, the permittee, upon written notification by the Regional Director, shall within 60 days of such notification submit for approval either a plan and schedule for corrective action or a plan and schedule for performing a ground water risk assessment. The plan shall set forth the steps to be taken by the permittee to ensure that the contamination source is eliminated, that the contaminant plume is contained on the permittee's property, or any leakage to surface water does not result in a violation of water quality standards. In addition, based on the extent of contamination, a risk analysis may be required. Once approved, this plan and/or analysis shall be incorporated into the permit by reference and become an enforceable part of this permit.

12. **Total Suspended Solids Load Calculations**

For each calendar month, the Discharge Monitoring Report (DMR) shall show the total monthly load (tons) and the cumulative load for the calendar year-to-date (tons) calculated in accordance with the following formulas:

$$DL = DC * Q * 0.00417$$

$$ML = \sum(DL)$$

where:

- ML = total monthly load in tons (summation of daily loadings for month)
- DC = daily concentration (mg/L)
- Q = flow associated with effluent data (MGD)

C. Special Conditions

12. **Total Suspended Solids Load Calculations (Continued)**

$$AL-YTD = \sum_{(Jan-current\ month)} (ML)$$

where:

AL-YTD = calendar year-to-date annual load in tons

The total suspended solids load for each calendar year (AL) shall be shown on the December DMR due January 10th of the following year. The first TSS annual loading is due on **January 10, 2016**.

13. **Permit Application Requirement**

In accordance with Part II.M of the permit, a new and complete permit application shall be submitted for the reissuance of this permit by the following date: **August 4, 2018**.

D. Biosolids Special Conditions

1. **Monthly Reporting**

The permittee shall submit a monthly report to the Department of Environmental Quality (DEQ) Blue Ridge Regional Office by the 15th day of each month (as evidenced by the transmission date or postmark), for biosolids activities that occurred in the previous calendar month.

If biosolids are not generated, monitored, or provided to the land applier under this permit during a calendar month, a report shall be submitted stating that no biosolids were generated, monitored, or delivered during the reporting period.

The monthly report will include at a minimum:

- a. The amount of biosolids generated, in dry tons.
- b. The amount of biosolids provided to a permitted land applier, in dry tons.
- c. Biosolids Monitoring Data -- The following data shall be submitted with the monthly report on the 15th day of the month after the samples were collected:
 - (1) The results of the monitoring specified in (if monitored in the previous month):
 - (a) Part I.A.5.b Biosolids – Metals Limitations
 - (b) Part I.A.5.d Biosolids – Biosolids Characteristics
 - (2) Monitoring data required by Part I.D.1.c(1) shall be submitted on the Monitoring Report. Supporting documentation, including laboratory chain of custody forms and certificates of analyses, shall be submitted with the report;
 - (3) Monthly average shall be reported as the average of the results of all samples collected within a calendar. For monitoring periods which include multiple months, if one sample is collected during the monitoring period, that result shall be reported as the monthly average. If samples are collected in different months during the monitoring period, a monthly average shall be calculated for each month that samples were collected in the reporting period and the highest monthly average reported. Individual results and calculations shall be submitted with the report; and

D. Biosolids Special Conditions

1. **Monthly Reporting (Continued)**

- (4) The maximum concentration shall be reported as the highest single results from all samples collected and analyzed during a monitoring period.

2. **Annual Report**

The permittee shall submit an Annual Report not later than February 19th of each year to the DEQ Blue Ridge Regional Office. Each report is for the previous calendar year's activity. If no biosolids were generated and provided to a land applier under this permit during the reporting year, a report shall be submitted stating that no biosolids were generated or delivered during the year. The report shall include at minimum:

- a. Part I.A.5.a Sewage Sludge Annual Production Monitoring;
- b. Monitoring and testing data or process control data that demonstrate compliance with pathogen reduction and VAR requirements for biosolids land applied during the previous calendar year; and
- c. Any biosolids monitoring data required by Part I.A.5 that were not submitted during the reporting calendar year.
- d. Identify other methods used to dispose of or use biosolids or sludge produced during the previous calendar year. Report the annual total amount of biosolids or sludge (in dry metric tons) disposed of or used by each method identified.
- e. The annual report shall be certified and signed in accordance with Part II.K.

3. **Notice and Necessary Information (NANI)**

A NANI shall be provided to any land applier to whom biosolids are provided. The NANI shall be provided at the time the biosolids are provided, if available, but no later than 45 days after the last day of the month which biosolids were provided. The NANI shall represent the most recent monitoring period. The NANI shall be on the form provided with this permit and include at a minimum:

- a. A statement that Class B pathogen requirements in 9 VAC 25-31-710.B were met and the alternative used;
- b. A statement that one of the VAR requirements in 9 VAC 25-31-720.B.1 through B.8 was met and the alternative used; or

D. Biosolids Special Conditions

3. **Notice and Necessary Information (NANI) (Continued)**

- c. A statement that one of the VAR requirements in 9 VAC25-31-720.B.1 through B.8 was not met and incorporation or injection was required;
- d. The notice(s) provided to the land applier when biosolids provided did not meet VAR and required incorporation or injection;
- e. The following certification statement: *"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."*

4. **Class B/PC Biosolids Record Keeping**

Class B/PC Biosolids records shall include:

- a. The following certification statement: *I certify, under penalty of law, that the information that will be used to determine compliance with the Class B pathogen requirements in 9 VAC 25-31-710 B and the vector attraction reduction requirements in 9 VAC 25-31-720 B.1 through B.8, was prepared under my direction and supervision accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."*
- b. A description of how the Class B pathogen requirements in 9 VAC 25-31-710 B are met; and
- c. When one of the vector attraction reduction requirements in 9 VAC 25-31-720 B.1 through B.8 is met, a description of how the vector attraction reduction requirement is met.

5. **Records Retention**

The permittee shall retain records of all biosolids activity for a period of at least 5 years from the date of the sample, measurement, or report. This period

D. Biosolids Special Conditions.

5. **Records Retention (Continued)**

of retention may be extended by request of the Board at any time. Records to be retained include:

- a. Monitoring information required in Part I.A;
- b. Reports required in Part I.D.1 and Part I.D.2;
- c. NANIs required in Parts I.D.3;
- d. Records required in Part I.D.4;
- e. Any other information pertaining to biosolids, as well as records of all data used to complete the application for this permit.

6. **Biosolids Management Plan (BSMP)**

- a. The permittee shall implement and maintain a BSMP which consists of the following components:
 - (1) The materials developed and submitted at the time of the permit application or permit modification in accordance with 9 VAC 25-31-100 Q;
 - (2) The Operations and Maintenance (O&M) Manual (sections regarding solids handling and biosolids production and management, etc.);
 - (3) An Odor Control Plan; and
 - (4) A site management plan for any Land Application Demonstration Plot to be established at the wastewater treatment plant, including a Nutrient Management Plan (NMP) approved by the Department of Conservation and Recreation.
- b. Odor Control Plan (OCP) Requirement – If an OCP is not on file at DEQ, an OCP shall be submitted to DEQ within 90 days of the modification/effective date of this permit. The OCP shall include at a minimum:
 - (1) Methods used to minimize odor in producing biosolids;

D. Biosolids Special Conditions

6. **Biosolids Management Plan (BSMP) (Continued)**

- (2) Methods used to identify malodorous biosolids before delivery to the land applier (at the generating facility);
 - (3) Methods used to identify and abate malodorous biosolids if delivered to the field, prior to land application; and
 - (4) Methods used to abate malodor from biosolids if land applied.
- c. Any proposed changes in the biosolids use or disposal practices or procedures followed by the permittee shall be documented and submitted for DEQ approval 90 days prior to the effective date of the changes. Upon approval, the revised changes become an enforceable part of the permit. The permit may be modified or alternatively revoked and reissued to incorporate limitations or conditions necessitated by substantial changes in biosolids use or disposal practices. The BSMP and all of its components are an enforceable part of the permit.

7. **Offsite Spill Reporting**

The permittee shall promptly report offsite spills to DEQ, the chief executive officer or designee for the local government jurisdiction in which the spill occurred and the owner of the facility generating the biosolids. The report shall be made verbally as soon as possible, but no later than 24 hours after the discovery of the spill. After business hours notification may be provided by voicemail, facsimile, or e-mail.

A written report, which shall include a description of measures taken in response to the spill, shall be submitted by the permittee to DEQ, the chief executive officer, or designee for the local government, and the owner of the facility generating the biosolids within five working days of the spill. The report may be sent by first class mail, facsimile, e-mail, or it may be hand delivered.

8. **Sludge Reopener**

The Board may promptly modify or alternatively, revoke and reissue this permit as appropriate and necessary to incorporate changes to any applicable standard or

D. Biosolids Special Conditions

8. **Sludge Reopener (Continued)**

requirement for the use or disposal of biosolids, industrial wastewater sludge, or septage under Section 405(d) of the Clean Water Act, the State Water Control Law, or 9 VAC 25-31-10, et seq. of the Virginia Pollution Discharge Elimination System Permit Regulation.

E. Pretreatment

The permittee's pretreatment program has been approved. The program is an enforceable part of this permit. The permittee shall:

1. Implement a pretreatment program that complies with the Clean Water Act, Water Control Law, state regulations, and the approved program.
2. Submit to DEQ's Blue Ridge Regional Office an annual report that describes the permittee's program activities over the previous year. The annual report shall be submitted no later than **January 31 of each year** and shall include:
 - a. An updated list of Significant Industrial Users* (SIUs) noting all of the following:
 - (1) facility address, phone, and contact name;
 - (2) explanation of SIUs deleted from the previous year's list;
 - (3) identify which IUs are subject to Categorical Standards and note which standard;
 - (4) specify which 40 CFR parts(s) is/are applicable;
 - (5) indicate which IUs are subject to local standards that are more stringent than Categorical Pretreatment Standards;
 - (6) indicate which IUs are subject only to local requirements;
 - (7) identify which IUs are subject to Categorical Pretreatment Standards that are subject to reduced reporting requirements under 9 VAC25-31-840 E.3;
 - (8) identify which IUs are non-significant Categorical Industrial Users.
 - b. A summary of the compliance status of each Significant Industrial User with pretreatment standards and permit requirements.
 - c. A summary of the number and types of Significant Industrial User sampling and inspections performed by the POTW;
 - d. All information concerning any interference, upset, or VPDES permit or Water Quality Standards violations directly attributable to Significant Industrial Users and enforcement actions taken to alleviate said events;
 - e. A description of all enforcement actions taken against Significant Industrial Users over the previous 12 months;
 - f. A summary of any changes to the submitted pretreatment program that have not been previously reported to DEQ's Blue Ridge Regional Office;

E. Pretreatment

- g. A summary of the permits issued to Significant Industrial Users since the last annual report;
 - h. POTW and self-monitoring results for Significant Industrial Users determined to be in significant non-compliance during the reporting period;
 - i. Results of the POTW's influent/ effluent/sludge sampling not previously submitted to DEQ;
 - j. Copies of newspaper publications of all Significant Industrial Users in significant non-compliance during the reporting period, due no later than **March 31 of each year**;
 - k. Signature of an authorized representative.
- 3. Submit any changes to the approved pretreatment program to DEQ's Blue Ridge Regional Office and obtain approval before implementation of the changes.
- 4. Ensure all Significant Industrial Users' permits are issued and reissued in a timely manner and that the SIU permits issued by the POTW are effective and enforceable.
- 5. Inspect and sample all Significant Industrial Users at a minimum of once a year:
 - a. Sampling shall include all regulated parameters, and shall be representative of the wastewater discharged;
 - b. Inspection of the Significant Industrial Users shall cover all areas which could result in wastewater discharge to the treatment works including manufacturing, chemical storage, pretreatment facilities, spill prevention and control procedures, hazardous waste generation, and Significant Industrial Users' self-monitoring and records.
- 6. Implement the reporting requirements of Part VII of the VPDES Permit Regulation.
- 7. Review the Enforcement Response Plan (ERP), and ensure it meets state and federal regulatory requirements. The approved ERP is an enforceable part of this permit and shall be implemented.
- 8. Develop local limits or reevaluate local limits using current influent, effluent, and sludge monitoring data and submit the data and results of the evaluation to DEQ's Blue Ridge

E. Pretreatment

Regional Office by **February 21, 2016**. All Significant Industrial Users shall be sampled at the end of any categorical process and at the entrance to the treatment works.

9. Ensure that adequate resources are available to implement the approved program.
10. Meet all public participation requirements and annually public notice Significant Industrial Users in significant non-compliance with pretreatment standards and requirements for the previous 12 months.
11. By **August 20, 2014** submit to DEQ's Blue Ridge Regional Office a survey of all Industrial Users discharging to the POTW. The information shall be submitted to the POTW on the DEQ's Discharger Survey Form or an equivalent form that includes the quantity and quality of the wastewater. Survey results shall include the identification of significant industrial users of the POTW.
12. In lieu of the survey, the permittee may elect to develop, submit for approval, and implement the plan to continuously survey the industrial community in their jurisdiction.
13. The DEQ may require the POTW to institute changes to its pretreatment program:
 - a. If the approved program is not implemented in a way satisfying the requirements of the Clean Water Act, Water Control Law, or State regulations;
 - b. If problems such as pass-through, interference, water quality standards violations, or sludge contamination develop or continue; and
 - c. If federal, state, or local requirements change.

* A significant industrial user is one that:

1. Has an average flow of 25,000 gallons or more per average workday of process ** wastewater;
2. Contributes a process waste stream which makes up 5.0 percent or more of the average dry weather hydraulic or organic capacity of the POTW;
3. Is subject to the categorical pretreatment standards; or
4. Has significant impact, either singularly or in combination with other Significant Dischargers, on the treatment works or the quality of its effluent.

** Excludes sanitary, non-contact cooling water, and boiler blowdown.

F. Whole Effluent Toxicity Testing

1. **Biological Monitoring (55 MGD Facility)**

- a. In accordance with the schedule in 2. below, the permittee shall conduct chronic toxicity tests for the duration of the permit. The permittee should collect 24-hour flow-proportioned composite samples of final effluent from outfall 001.

The chronic tests to use are:

Chronic 3-Brood Static Renewal Survival and Reproduction Test using
Ceriodaphnia dubia

Chronic 7-Day Static Renewal Survival and Growth Test using
Pimephales promelas

These chronic tests shall be conducted in such a manner and at sufficient dilutions (minimum of five dilutions, derived geometrically) to determine the "No Observed Effect Concentration" (NOEC) for survival and reproduction or growth. Results which cannot be determined (i.e., a "less than" NOEC value) are not acceptable, and a retest will have to be performed. Express the test NOEC as TU_c (Chronic Toxic Units), by dividing $100/NOEC$ for DMR reporting. Report the LC_{50} at 48 hours and the IC_{25} with the NOECs in the test report.

The permittee may provide additional samples to address data variability during the period of initial data generation. These data shall be reported and may be included in the evaluation of effluent toxicity. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3.

- b. The test dilutions should be able to determine compliance with the following endpoint:

Chronic NOEC of 49% equivalent to a TU_c of 2.04

These chronic tests shall be conducted in such a manner and at sufficient dilutions (minimum of five dilutions, derived geometrically) to determine the "No Observed Effect Concentration" (NOEC) for survival and growth. Results which cannot be determined (i.e., a "less than" NOEC value) are not acceptable, and a retest will have to be performed. Express the test NOEC as TU_c (Chronic Toxic Units), by dividing $100/NOEC$ for DMR reporting. Report the LC_{50} at 48 hours and the IC_{25} with the NOECs in the test report.

F. Whole Effluent Toxicity Testing

1. **Biological Monitoring (55 MGD Facility) (Continued)**

The permittee may provide additional samples to address data variability during the period of initial data generation. These data shall be reported and may be included in the evaluation of effluent toxicity. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3.

- c. The test data will be evaluated by the STATS program for reasonable potential at the conclusion of test period. The data may be evaluated sooner if requested by the permittee, or if toxicity has been noted. Should evaluation of the data indicated that a limit is needed a WET limit and compliance schedule will be required and the toxicity tests of 1.a may be discontinued.

2. **Reporting Schedule (55 MGD Facility):**

The permittee shall submit a copy of the toxicity test reports specified in this whole effluent toxicity testing special condition to the DEQ Blue Ridge Regional Office in accordance with the following schedule:

| <u>Period</u> | <u>Compliance Periods</u> | <u>Data Submission Dates</u> |
|---------------|---------------------------|------------------------------|
| Annual 1 | By 03/31/15 | 04/10/15 |
| Annual 2 | By 03/31/16 | 04/10/16 |
| Annual 3 | By 03/31/17 | 04/10/17 |
| Annual 4 | By 03/31/18 | 04/10/18 |
| Annual 5 | By 12/31/18 | 01/10/19 |

3. **Biological Monitoring – Outfall 001 (62 MGD Facility)**

- a. Commencing within 90 days from the issuance of the Certificate to Operate the upgraded facility, the permittee shall conduct quarterly acute and chronic toxicity tests until four quarters of testing are completed. The permittee should collect 24-hour flow-proportioned composite samples of final effluent from outfall 001. Sampling shall be representative of any discharges which include blended wastewater.

The acute tests to use are:

48 Hour Static Acute Test using *Ceriodaphnia dubia*
48 Hour Static Acute Test using *Pimephales promelas*

F. Whole Effluent Toxicity Testing

3. **Biological Monitoring – Outfall 001 (62 MGD Facility) (Continued)**

These acute tests shall be performed with a minimum of 5 dilutions, derived geometrically, for calculation of a valid LC_{50} . Express the result as TU_a (Acute Toxic Units) by dividing $100/LC_{50}$ for DMR reporting.

The chronic tests to use are:

Chronic 3-Brood Static Renewal Survival and Reproduction Test using *Ceriodaphnia dubia*

Chronic 3-Brood Static Renewal Survival and Growth Test using *Pimephales promelas*

These chronic tests shall be conducted in such a manner and at sufficient dilutions (minimum of five dilutions, derived geometrically) to determine the "No Observed Effect Concentration" (NOEC) for survival and reproduction or growth. Results which cannot be determined (i.e., a "less than" NOEC value) are not acceptable, and a retest will have to be performed. Express the test NOEC as TU_c (Chronic Toxic Units), by dividing $100/NOEC$ for DMR reporting. Report the LC_{50} at 48 hours and the IC_{25} with the NOECs in the test report.

The permittee may provide additional samples to address data variability during the period of initial data generation. These data shall be reported and may be included in the evaluation of effluent toxicity. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3.

b. The test dilutions should be able to determine compliance with the following endpoints:

- (1) Acute LC_{50} of 100% equivalent to a TU_a of 1.0
- (2) Chronic NOEC for the 62 MGD Facility of 50% equivalent to a TU_c of 2.00

F. Whole Effluent Toxicity Testing3. **Biological Monitoring – Outfall 001 (62 MGD Facility) (Continued)**

- c. The permittee may provide additional samples to address data variability during the period of initial data generation. These data shall be reported and may be included in the evaluation of effluent toxicity. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3.
- d. Once four quarters of data are collected, the permittee shall begin annual toxicity. The first annual tests shall be conducted within 6 months of the last quarterly toxicity tests. If there was no acute toxicity in any of the quarterly testing events, then only chronic toxicity testing shall be required. Otherwise both acute and chronic toxicity testing shall be required. Toxicity testing shall be using both species identified for the 55 MGD facility.
- d. The test data may be evaluated for reasonable potential at the conclusion of test period. The data may be evaluated sooner if requested by the permittee, or if toxicity has been noted. Should evaluation of the data indicate that a limit is needed a WET limit and compliance schedule will be required and the toxicity tests of Part I.F may be discontinued.

4. **Reporting Schedule (Outfall 001 – 62 MGD Facility):**

| <u>Period</u> | <u>Compliance Periods</u> | <u>DMR Submission Dates</u> |
|---------------|---|---|
| Quarter 1 | Conduct 1 st quarter tests within 90 days following issuance of the certificate to operate upgraded facility. | 10 th of month following completion of tests |
| Quarter 2 | Conduct 2 nd quarter tests by the end of the 6th month following the issuance of the certificate to operate upgraded facility. | 10 th of month following completion of tests |
| Quarters 3 -4 | Conduct subsequent quarterly tests in accordance with the increments described above. | 10 th of month following completion of tests |
| Annual | Conduct 1 st annual toxicity tests within 12 months of the last toxicity testing event. | 10th of month following completion of tests |
| Annual | Conduct subsequent annual toxicity tests in accordance within 12 month increments described above. | 10th of month following completion of tests |

G. Storm Water Management**1. Storm Water Management Evaluation**

The Storm Water Pollution Prevention Plan (SWPPP), which is to be developed and maintained in accordance with Part I.G.3 and Part I.G.4 below, shall have a goal of reducing pollutants discharged from all the regulated industrial activity storm water outfalls.

One goal of the SWPPP shall place emphasis on reducing, to the maximum extent practicable, the following pollutants in the outfalls noted below.

| <u>Parameter</u> | <u>Benchmark</u> | <u>Outfalls</u> |
|-------------------------|------------------|-----------------|
| Total Suspended Solids | 100 mg/L | 008, 009, 011 |
| Total Kjeldahl Nitrogen | 1.5 mg/L | 008, 009 |

The effectiveness of the SWPPP will be evaluated via the required monitoring for all parameters listed in Part I.A of this permit for the regulated storm water outfalls, including the specific pollutants noted above. Monitoring results that are above the comparative value for the specific pollutants above will justify the need to reexamine the effectiveness of the SWPPP and any control measures being utilized for the affected outfalls. In addition, the permittee shall amend the SWPPP whenever there is a change in the facility or its operation that materially increases the potential for activities to result in a discharge of significant amounts of pollutants.

2. General Storm Water Special Conditions**a. Sample Type**

For all storm water monitoring required in Part I.A or other applicable sections of this permit, a minimum of one grab sample shall be taken. Unless otherwise specified, all such samples shall be collected from the discharge resulting from a storm event that occurs at least 72 hours from the previously measureable storm event (a "measurable storm event" is defined as a storm event that results in an actual discharge from the site). The required 72 hour storm event interval is waived where the preceding measurable storm event did not result in a measurable discharge from the facility. The required 72 hour storm event interval may also be waived where the permittee documents that less than a 72 hour interval is representative for local storm events during the season when sampling is being conducted. The grab sample shall be taken during the first 30 minutes of the discharge. If the collection of a grab sample during the first 30 minutes is impracticable, a grab sample can be taken during the first three hours of the discharge, and the permittee shall submit with the monitoring report a description of why a grab sample during the first 30 minutes was impracticable. If storm water discharges associated

G. Storm Water Management

2. **General Storm Water Special Conditions**

with industrial activity commingle with process or non-process water, then where practicable, permittees must attempt to sample the storm water discharge before it mixes with the nonstorm water discharge.

b. Recording of Results

For each measurement or sample taken pursuant to the storm event monitoring requirements of this permit, the permittee shall record and report with the Discharge Monitoring Reports (DMRs) the following information:

- (1) The date and duration (in hours) of the storm event(s) sampled;
- (2) The rainfall measurements or estimates (in inches) of the storm event which generated the sampled discharge; and
- (3) The duration between the storm event sampled and the end of the previous measurable storm event.

c. Sampling Waiver

When a permittee is unable to collect storm water samples required in **Part I.A** or other applicable sections of this permit within a specified sampling period due to adverse climatic conditions, the permittee shall collect a substitute sample from a separate qualifying event in the next period and submit these data along with the data for the routine sample in that period. Adverse weather conditions that may prohibit the collection of samples include weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.) or otherwise make the collection of a sample impracticable (drought, extended frozen conditions, etc.).

d. Representative Discharges

If the facility has two or more outfalls that discharge substantially identical effluents, based on similarities of the industrial activities, significant materials, size of drainage areas, and storm water management practices occurring within the drainage areas of the outfalls, the permittee may conduct monitoring on the effluent of just one of the outfalls and report that the observations also apply to the substantially identical outfall(s). The substantially identical outfalls monitoring provisions apply to quarterly visual monitoring, benchmark monitoring, and impaired waters monitoring. The substantially identical outfall monitoring provisions are not available for numeric effluent limits monitoring.

G. Storm Water Management

2. **General Storm Water Special Conditions (Continued)**

The permittee shall include the following information in the SWPPP:

- (1) The location of the outfalls;
- (2) Why the outfalls are expected to discharge substantially identical effluents, including evaluation of monitoring data, where available; and
- (3) Estimates of the size of the drainage area (in square feet) for each of the outfalls.

e. Quarterly Visual Examination of Storm Water Quality

- (1) The permittee shall perform and document a quarterly visual examination of a storm water discharge associated with industrial activity from each outfall, except discharges exempted below. The examination(s) must be made at least once in each of the following three-month periods: January through March, April through June, July through September, and October through December. The visual examination shall be made during normal working hours, where practicable, and when considerations for safety and feasibility allow. If no storm event resulted in runoff from the facility during a monitoring quarter, the permittee is excused from visual monitoring for that quarter provided that documentation is included with the monitoring records indicating that no runoff occurred. The documentation must be signed and certified in accordance with Part II.K "Signatory Requirements" in "Conditions Applicable to All VPDES Permit" of this permit.
- (2) Visual examinations shall be made of samples collected in accordance with **Part I.G.2.a** (Sample Type). The examination shall document observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution. The examination must be conducted in a well-lit area. No analytical tests are required to be performed on the samples.
- (3) The visual examination reports shall be maintained on-site with the Storm Water Pollution Prevention Plan (SWPPP). The report shall include the outfall location, the examination date and time, examination personnel, the nature of the discharge (i.e., runoff or snow melt), visual quality of the storm water discharge (including

G. Storm Water Management

2. **General Storm Water Special Conditions (Continued)**

observations of color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution), and probable sources of any observed storm water contamination.

f. Authorized Nonstorm Water Discharges

- (1) The following nonstorm water discharges are authorized by this permit:
 - (a) Discharges from fire fighting activities;
 - (b) Fire hydrant flushings;
 - (c) Potable water including water line flushings;
 - (d) Uncontaminated condensate from air conditioners, coolers, and other compressors and from the outside storage of refrigerated gases or liquids;
 - (e) Irrigation drainage;
 - (f) Landscape watering provided all pesticides, herbicides, and fertilizer have been applied in accordance with approved labeling;
 - (g) Pavement wash waters where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed);
 - (h) Routine external building wash down which does not use detergents;
 - (i) Uncontaminated groundwater or spring water;
 - (j) Foundation or footing drains where flows are not contaminated with process materials; and
 - (k) Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but NOT intentional discharges from the cooling tower (e.g., "piped" cooling tower blowdown or drains).

G. Storm Water Management**2. General Storm Water Special Conditions (Continued)****g. Releases of Hazardous Substances or Oil in Excess of Reportable Quantities**

The discharge of hazardous substances or oil in the storm water discharge(s) from the facility shall be prevented or minimized in accordance with the storm water pollution prevention plan for the facility. This permit does not authorize the discharge of hazardous substances or oil resulting from an on-site spill. This permit does not relieve the permittee of the reporting requirements of 40 CFR 110, 40 CFR 117 and 40 CFR 302 or § 62.1-44.34:19 of the Code of Virginia. Where a release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR 110, 40 CFR 117 or 40 CFR 302 occurs during a 24-hour period:

- (1) The permittee is required to notify the Department in accordance with the requirements of **Part II.G** "Reports of Unauthorized Discharges" in "Conditions Applicable to All VPDES Permits" as soon as he or she has knowledge of the discharge;
- (2) Where a release enters a municipal separate storm sewer system (MS4), the permittee shall also notify the owner or the MS4; and
- (3) The storm water pollution prevention plan required by this permit must be reviewed to identify measures to prevent the reoccurrence of such releases and to respond to such releases, and the plan must be modified where appropriate.

h. Water Quality Protection

The discharges authorized by this permit shall be controlled as necessary to meet applicable water quality standards. DEQ expects that compliance with the conditions in this permit will control discharges as necessary to meet applicable water quality standards.

i. Corrective Actions

- (1) **Data Exceeding Benchmark Concentration Values**
 - (a) If the benchmark monitoring result exceeds the benchmark concentration value for that parameter, the permittee shall review the SWPPP and modify it as necessary to address any deficiencies that caused the exceedance. Revisions to the

G. Storm Water Management

2. **General Storm Water Special Conditions (Continued)**

SWPPP shall be completed within 30 days after an exceedance is discovered. When control measures need to be modified or added (distinct from regular preventive maintenance of existing control measures described in **Part I.G.3.c** (Maintenance) implementation shall be completed before the next anticipated storm event if possible, but no later than 60 days after the exceedance is discovered, or as otherwise provided or approved by the DEQ Blue Ridge Regional Office. In cases where construction is necessary to implement control measures, the permittee shall include a schedule in the SWPPP that provides for the completion of the control measures as expeditiously as practicable, but no later than three years after the exceedance is discovered. Where a construction compliance schedule is included in the SWPPP, the plan shall include appropriate nonstructural and temporary controls to be implemented in the affected portion(s) of the facility prior to completion of the permanent control measure. Any control measure modifications shall be documented and dated, and retained with the SWPPP, along with the amount of time taken to modify the applicable control measures or implement additional control measures.

(b) Natural Background Pollutant Levels

If the concentration of a pollutant exceeds a benchmark concentration value, and the permittee determines that exceedance of the benchmark is attributable solely to the presence of that pollutant in the natural background, corrective action is not required provided that:

- (i) The concentration of the benchmark monitoring result is less than or equal to the concentration of that pollutant in the natural background;
- (ii) The permittee documents and maintains with the SWPPP the supporting rationale for concluding that benchmark exceedances are in fact attributable solely to natural background pollutant levels. The supporting rationale shall include any data previously collected by the facility or others (including literature studies) that

G. Storm Water Management

2. **General Storm Water Special Conditions (Continued)**

describe the levels of natural background pollutants in the facility's storm water discharges, and

- (iii) The permittee notifies the DEQ Blue Ridge Regional Office on the DMR that the benchmark exceedances are attributable solely to natural background pollutant levels. Natural background pollutants include those substances that are naturally occurring in soils or groundwater. Natural background pollutants do not include legacy pollutants from earlier activity on the facility's site or pollutants in run-on from neighboring sources which are not naturally occurring.

(2) **Corrective Actions.** The permittee shall take corrective actions whenever:

- (a) Routine facility inspections, comprehensive site compliance evaluations, inspections by local, state, or federal officials, or any other process, observation or event result in a determination that modifications to the storm water control measures are necessary to meet the permit requirements; or
- (b) There is any exceedances of an effluent limitation (including coal pile runoff), or TMDL wasteload allocation, or a reduction required by a local ordinance established by a municipality to meet Chesapeake Bay TMDL requirements;
- (c) The DEQ Blue Ridge Regional Office determines, or the permittee becomes aware, that the storm water control measures are not stringent enough for the discharge to meet applicable water quality standards.

The permittee shall review the SWPPP and modify it as necessary to address any deficiencies. Revisions to the SWPPP shall be completed within 30 days following the discovery of the deficiency. When control measures need to be modified or added (distinct from regular preventive maintenance of existing control measures described in Part I.G.3.c (Maintenance) implementation shall be completed before the next anticipated storm event if possible, but no later than 60 days after the deficiency is discovered, or as otherwise

G. Storm Water Management2. **General Storm Water Special Conditions (Continued)**

provided or approved by the DEQ Blue Ridge Regional Office. In cases where construction is necessary to implement control measures, the permittee shall include a schedule in the SWPPP that provides for the completion of the control measures as expeditiously as practicable, but no later than three years after the deficiency is discovered. Where a construction compliance schedule is included in the SWPPP, the plan shall include appropriate nonstructural and temporary controls to be implemented in the affected portion(s) of the facility prior to completion of the permanent control measure. The amount of time taken to modify a control measure or implement additional control measures shall be documented in the SWPPP.

Any corrective actions taken shall be documented and retained with the SWPPP. Report of corrective actions shall be signed in accordance with **Part II.K** (Signatory Requirements).

(3) Follow-up Reporting

If at any time monitoring results indicate that discharges from the facility exceed an effluent limitation or a TMDL wasteload allocation, or the DEQ Blue Ridge Regional Office determine that discharges from the facility are causing or contributing to an exceedance of a water quality standard, immediate steps shall be taken to eliminate the exceedances in accordance with the above **Part I.G.2.i(2)** (Corrective Actions). Within 30 calendar days of implementing the relevant corrective action(s), an exceedance report shall be submitted to the DEQ Blue Ridge Regional Office. The following information shall be included in the report: permit number, facility name, address and location; receiving water, monitoring data from this event; an explanation of the situation; description of what has been done and the intended actions (should the corrective actions not yet be complete) to further reduce pollutants in the discharge; and an appropriate contact name and phone number.

G. Storm Water Management**2. General Storm Water Special Conditions (Continued)****j. Additional Requirements for Salt Storage**

Storage piles of salt or piles containing salt used for deicing or other commercial or industrial purposes shall be enclosed or covered to prevent exposure to precipitation. The permittee shall implement appropriate measures (e.g., good housekeeping, diversions, containment) to minimize exposure resulting from adding to or removing materials from the pile. All salt storage piles shall be located on an impervious surface. All runoff from the pile, and/or runoff that comes in contact with salt, including under drain systems, shall be collected and contained within a bermed basin lined with concrete or other impermeable materials, or within an underground storage tank(s), or within an above ground storage tank(s), or disposed of through a sanitary sewer (with the permission of the treatment facility). A combination of any or all of these methods may be used. In no case shall salt contaminated storm water be allowed to discharge directly to the ground or to state waters.

3. Storm Water Pollution Prevention Plan

Refer to **Part I.G.4** for sector-specific storm water management requirements.

A storm water pollution prevention plan (SWPPP) for the facility was required to be developed and implemented under the previous permit. The existing storm water pollution prevention plan shall be reviewed and modified, as appropriate, to conform to the requirements of this section. Permittees shall implement the provisions of the storm water pollution prevention plan as a condition of this permit.

The storm water pollution prevention plan requirements of this permit may be fulfilled, in part, by incorporating by reference other plans or documents such as a spill prevention control and countermeasure (SPCC) plan developed for the facility under Section 311 of the Clean Water Act or control measure programs otherwise required for the facility, provided that the incorporated plan meets or exceeds the plan requirements of **Part I.G.3.b** (Contents of the Plan). All plans incorporated by reference into the storm water pollution prevention plan become enforceable under this permit. If a plan incorporated by reference does not contain all of the required elements of the SWPPP of **Part I.G.3.b**, the permittee shall develop the missing SWPPP elements and include them in the required plan.

a. Deadlines for Plan Preparation and Compliance

- (1) The facility shall review and update the SWPPP as expeditiously as practicable, but not later than 90 days from the effective date of the permit.

G. Storm Water Management

3. **Storm Water Pollution Prevention Plan (Continued)**

- (2) **Measures That Require Construction.** In cases where construction is necessary to implement measures required by the plan, the plan shall contain a schedule that provides compliance with the plan as expeditiously as practicable, but no later than 3 years after the effective date of this permit. Where a construction compliance schedule is included in the plan, the schedule shall include appropriate nonstructural and temporary controls to be implemented in the affected portion(s) of the facility prior to completion of the permanent control measure.

b. Contents of the Plan

The contents of the SWPPP shall comply with the requirements listed below and those in **Part I.G.4**. The plan shall include, at a minimum, the following items:

- (1) **Pollution Prevention Team.** The plan shall identify the staff individuals by name or title who comprise the facility's storm water pollution prevention team. The pollution prevention team is responsible for assisting the facility or plant manager in developing, implementing, maintaining, revising, and ensuring compliance with the facility's SWPPP. Responsibilities of each staff individual on the team shall be identified and listed.
- (2) **Site Description.** The SWPPP shall include the following:
 - (a) **Activities at the Facility.** A description of the nature of the industrial activities at the facility.
 - (b) **General Location Map.** A general location map (e.g., USGS quadrangle or other map) with enough detail to identify the location of the facility and the receiving waters within one mile of the facility.
 - (c) **Site Map.** A site map identifying the following:
 - (i) The boundaries of the property and the size of the property (in acres);

G. Storm Water Management

3. **Storm Water Pollution Prevention Plan (Continued)**

- (ii) The location and extent of significant structures and impervious surfaces (roofs, paved areas and other impervious areas);
- (iii) Locations of all storm water conveyances including ditches, pipes, swales, and inlets, and the directions of storm water flow (use arrows to show which ways storm water will flow);
- (iv) Locations of all existing structural and source control measures, including best management practices (BMPs);
- (v) Locations of all surface water bodies; including wetlands;
- (vi) Locations of potential pollutant sources identified under **Part I.G.3.b(3)** (Summary of Potential Pollutant Sources);
- (vii) Locations where significant spills or leaks identified under **Part I.G.3.b(4)** (Spills and Leaks) have occurred;
- (viii) Locations of the following activities where such activities are exposed to precipitation: fueling stations; vehicles and equipment maintenance and cleaning areas; loading and unloading areas; locations used for the treatment; storage or disposal of wastes; liquid storage tanks; processing and storage areas; access roads, rail cars and tracks; transfer areas for substances in bulk; and machinery;
- (ix) Locations of storm water outfalls and an approximate outline of the area draining to each outfall, and location of municipal storm sewer systems, if the storm water from the facility discharges to them;
- (x) Location and description of all nonstorm water discharges;

G. Storm Water Management

3. **Storm Water Pollution Prevention Plan (Continued)**

- (xi) Location of any storage piles containing salt used for deicing or other commercial or industrial purposes; ..
 - (xii) Locations and sources of runoff to the site from adjacent property, where the runoff contains significant quantities of pollutants; and
 - (xiii) Locations of all storm water monitoring points.
- (d) Receiving Waters and Wetlands. The name of all surface waters receiving discharges from the site, including intermittent streams, dry sloughs, and arroyos. Provide a description of wetland sites that may receive discharges from the facility. If the facility discharges through a municipal separate storm sewer system (MS4), identify the MS4 operator and the receiving water to which the MS4 discharges.
- (3) Summary of Potential Pollutant Sources. The plan shall identify each separate area at the facility where industrial materials or activities are exposed to storm water. Industrial materials or activities include, but are not limited to: material handling equipment or activities, industrial machinery, raw materials, industrial production and processes, intermediate products, byproducts, final products, and waste products. Material handling activities include, but are not limited to: the storage, loading and unloading, transportation, disposal, or conveyance of any raw material, intermediate product, final product or waste product. For each separate area identified, the description shall include:
- (a) Activities in the Area. A list of the industrial activities exposed to storm water (e.g., material storage, equipment fueling and cleaning, cutting steel beams);
 - (b) Pollutants. A list of the pollutant(s) or pollutant constituents (e.g., crankcase oil, zinc, sulfuric acid, cleaning solvents, etc.) associated with each industrial activity. The pollutant list shall include all significant materials handled, treated, stored, or disposed that have been exposed to storm water in the three years prior to the date this SWPPP was prepared or amended. The list shall include any hazardous substances or oil at the facility.

G. Storm Water Management

3. **Storm Water Pollution Prevention Plan (Continued)**

- (3) **Summary of Potential Pollutant Sources.** The plan shall identify each separate area at the facility where industrial materials or activities are exposed to storm water. Industrial materials or activities include, but are not limited to: material handling equipment or activities, industrial machinery, raw materials, industrial production and processes, intermediate products, byproducts, final products, and waste products. Material handling activities include, but are not limited to: the storage, loading and unloading, transportation, disposal, or conveyance of any raw material, intermediate product, final product or waste product. For each separate area identified, the description shall include:
 - (a) **Activities in Area.** A list of the industrial activities exposed to storm water (e.g., material storage, equipment fueling and cleaning, cutting steel beams);
 - (b) **Pollutants.** A list of the pollutant(s) or pollutant constituents (e.g., crankcase oil, zinc, sulfuric acid, cleaning solvents, etc.) associated with each industrial activity. The pollutant list shall include all significant materials handled, treated, stored or disposed that have been exposed to storm water in the three years prior to the date this SWPPP was prepared or amended. The list shall include any hazardous substances or oil at the facility.
- (4) **Spills and Leaks.** The SWPPP shall clearly identify areas where potential spills and leaks that can contribute pollutants to storm water discharges can occur and their corresponding outfalls. The plan shall include a list of significant spills and leaks of toxic or hazardous pollutants that actually occurred at exposed areas, or that drained to a storm water conveyance during the three-year period prior to the date this SWPPP was prepared or amended. The list shall be updated if significant spills or leaks occur in exposed areas of the facility during the term of the permit. Significant spills and leaks include, but are not limited to, releases of oil or hazardous substances in excess of reportable quantities.
- (5) **Sampling Data.** The plan shall include a summary of existing storm water discharge sampling data taken at the facility. The summary shall include, at a minimum, any data collected during the previous permit term.

G. Storm Water Management

3. **Storm Water Pollution Prevention Plan (Continued)**

(6) Storm Water Controls

- (a) Control measures shall be implemented for all the areas identified in **Part I.G.3.b(3)** (Summary of Potential Pollutant Sources) to prevent or control pollutants in storm water discharges from the facility. Regulated storm water discharges from the facility include storm water run-on that commingles with storm water discharges associated with industrial activity at the facility. The SWPPP shall describe the type, location and implementation of all control measures for each area where industrial materials or activities are exposed to storm water. Selection of control measures shall take into consideration:
 - (i) That preventing storm water from coming into contact with polluting materials is generally more effective, and less costly, than trying to remove pollutants from storm water;
 - (ii) Control measures generally shall be used in combination with each other for most effective water quality protection;
 - (iii) Assessing the type and quantity of pollutants, including their potential to impact receiving water quality, is critical to designing effective control measures;
 - (iv) That minimizing impervious areas at the facility can reduce runoff and improve groundwater recharge and stream base flows in local streams (however, care must be taken to avoid ground water contamination);
 - (v) Flow attenuation by use of open vegetated swales and natural depressions can reduce in-stream impacts of erosive flows;
 - (vi) Conservation or restoration of riparian buffers will help protect streams from storm water runoff and improve water quality; and
 - (vii) Treatment interceptors (e.g., swirl separators and sand filters) may be appropriate in some instances to minimize the discharge of pollutants.

G. Storm Water Management

3. **Storm Water Pollution Prevention Plan (Continued)**

- (b) Nonnumeric technology-based effluent limits. The permittee shall implement the following types of control measures to prevent and control pollutants in the storm water discharges from the facility, unless it can be demonstrated and documented that such controls are not relevant to the discharges (e.g., there are no storage piles containing salt).
 - (i) Good Housekeeping. The permittee shall keep clean all exposed areas of the facility that are potential sources of pollutants to storm water discharges. Typical problem areas include areas around trash containers, storage areas loading docks, and vehicle fueling and maintenance areas. The plan shall include a schedule for regular pickup and disposal of waste materials, along with routine inspections for leaks and conditions of drums, tanks and containers.
 - (ii) Eliminating and Minimizing Exposure. To the extent practicable manufacturing, processing and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operation) shall be located inside, or protected by a storm-resistant covering to prevent exposure to rain, snow, snowmelt, and runoff. Note: Eliminating exposure at all industrial areas may make the facility eligible for the "Conditional Exclusion for No Exposure" provision of 9 VAC 25-31-120 E, thereby eliminating the need to have a permit.
 - (iii) Preventive Maintenance. The permittee shall have a preventive maintenance program that includes regular inspection, testing, maintenance and repairing of all industrial equipment and systems to avoid situations that could result in leaks, spill and other releases. This program is in addition to the specific control measure maintenance required under **Part I.G.3.c** (Maintenance).
 - (iv) Spill Prevention and Response Procedures. The plan shall describe the procedures that will be followed for preventing and responding to spills and leaks, including:

G. Storm Water Management

3. **Storm Water Pollution Prevention Plan (Continued)**

- (A) Preventive measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling;
- (B) Response procedures including notification of appropriate facility personnel, emergency agencies, and regulatory agencies, and procedures for stopping, containing and cleaning up spills. Measures for cleaning up hazardous material spills or leaks shall be consistent with applicable RCRA regulations at 40 CFR Part 264 and 40 CFR Part 265. Employees who may cause, detect or respond to a spill or leak shall be trained in these procedures and have necessary spill response equipment available. If possible, one of these individuals shall be a member of the Pollution Prevention Team;
- (C) Procedures for plainly labeling containers (e.g. "used oil," "spent solvents," "fertilizers and pesticides," etc.) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur, and
- (D) Contact information for individuals and agencies that must be notified in the event of a spill shall be included in the SWPPP, and in other locations where it will be readily available.
- (v) Routine Facility Inspections. Facility personnel who possess the knowledge and skills to assess conditions and activities that could impact storm water quality at the facility, and who can also evaluate the effectiveness of control measures shall regularly inspect all areas of the facility where industrial materials or activities are exposed to storm water. These inspections are in addition to, or as part of, the comprehensive site

G. Storm Water Management

3. **Storm Water Pollution Prevention Plan (Continued)**

evaluation required under **Part I.G.3.d.** At least one member of the Pollution Prevention Team shall participate in the routine facility inspections.

The inspection frequency shall be specified in the plan based upon a consideration of the level of industrial activity at the facility, but shall be a minimum of quarterly unless more frequent intervals are specified elsewhere in the permit or written approval is received from the Department for less frequent intervals. At least once each calendar year the routine facility inspection shall be conducted during a period when a storm water discharge is occurring.

Any deficiencies in the implementation of the SWPPP that are found shall be corrected as soon as practicable, but not later than within 30 days of the inspection, unless permission for a later date is granted in writing by the Director. The results of the inspections shall be documented in the SWPPP and shall include at a minimum:

- (A) The inspection date and time;
- (B) The name and signature of the inspector(s);
- (C) Weather information and a description of any discharges occurring at the time of the inspection;
- (D) Any previously unidentified discharges of pollutants from the site;
- (E) Any control measures needing maintenance or repairs;
- (F) Any failed control measures that need replacement;
- (G) Any incidents of noncompliance observed; and
- (H) Any additional control measures needed to comply with the permit requirements.

G. Storm Water Management

3. **Storm Water Pollution Prevention Plan (Continued)**

- (vi) **Employee Training.** The permittee shall implement a storm water employee training program for the facility. Employee training shall take place, at a minimum, once per calendar year. The storm water employee training program shall include initial training for new hires. The SWPPP shall include a schedule for all types of necessary training and shall document all training sessions and the employees who received the training. Training shall be provided for all employees who work in areas where industrial materials or activities are exposed to storm water, and for employees who are responsible for implementing activities identified in the SWPPP (e.g., inspectors, maintenance personnel, etc.). The training shall cover the components and goals of the SWPPP, and include such topics as spill response, good housekeeping, material management practices, control measure operation and maintenance, etc. The SWPPP shall include a summary of any training performed.
- (vii) **Sediment and Erosion Control.** The plan shall identify areas at the facility that, due to topography, land disturbance (e.g., construction, landscaping, site grading), or other factors, have a potential for soil erosion. The permittee shall identify and implement structural, vegetative, and stabilization control measures to prevent or control on-site and off-site erosion and sedimentation. Flow velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel if the flows would otherwise create erosive conditions.
- (viii) **Management of Runoff.** The plan shall describe the storm water runoff management practices (i.e., permanent structural control measures) for the facility. These types of control measures are typically used to divert, infiltrate, reuse, or otherwise reduce pollutants in storm water discharges from the site.

Structural control measures may require a separate permit under §404 of the CWA and the Virginia Water Protection Permit Program Regulation (9 VAC 25-210) before installation begins.

G. Storm Water Management

3. **Storm Water Pollution Prevention Plan (Continued)**

- ix. Dust Suppression and Vehicle Tracking of Industrial Materials. The permittee shall implement control measures to minimize the generation of dust and off-site tracking of raw, final, or waste materials. Storm water collected on-site may be used for the purposes of dust suppression or for spraying stockpiles. Potable water and well water may also be used for this purpose. There shall be no direct discharge to surface waters from dust suppression activities or as a result of spraying stockpiles.

c. Maintenance

The SWPPP shall include a description of procedures and a regular schedule for preventive maintenance of all control measures, and shall include a description of the back-up practices that are in place should a runoff event occur while a control measure is off-line. The effectiveness of nonstructural control measures shall also be maintained by appropriate means (e.g., spill response supplies available and personnel trained, etc.).

All control measures identified in the SWPPP shall be maintained in effective operating condition and shall be observed at least annually during active operation (i.e. during a storm water runoff event) to ensure that they are functioning correctly. Where discharge locations are inaccessible, nearby downstream locations shall be observed. The observations shall be documented in the SWPPP.

If site inspections required by **Part I.G.3.b(6)(b)(v)** (Routine Facility Inspections) or **Part I.G.3.d** (Comprehensive Site Compliance Evaluation) identify control measures that are not operating effectively, repairs or maintenance shall be performed before the next anticipated storm event. If maintenance prior to the next anticipated storm event is not possible, maintenance shall be scheduled and accomplished as soon as practicable. In the interim, back-up measures shall be employed and documented in the SWPPP until repairs or maintenance is complete. Documentation shall be kept with the SWPPP of maintenance and repairs of control measures, including the date(s) of regular maintenance, date(s) of discovery of areas in need of repair or

G. Storm Water Management

3. **Storm Water Pollution Prevention Plan (Continued)**

replacement, and date(s) for repairs that the control measures returned to full function, and the justification for any extended maintenance or repair schedules.

d. Comprehensive Site Compliance Evaluation

The permittee shall conduct comprehensive site compliance evaluations at least once each calendar year. The evaluations shall be done by qualified personnel who possess the knowledge and skills to assess conditions and activities that could impact storm water quality at the facility and who can also evaluate the effectiveness of control measures. The personnel conducting the evaluations may be either facility employees or outside personnel hired by the facility.

- (1) **Scope of the Compliance Evaluation.** Evaluations shall include all areas where industrial materials or activities are exposed to storm water, as identified in **Part.I.G.3.b(3)** (Summary of Potential Pollutant Sources). The personnel shall evaluate:
 - (a) Industrial materials, residue or trash that may have or could come into contact with storm water;
 - (b) Leaks or spills from industrial equipment, drums, barrels, tanks or other containers that have occurred within the past three years;
 - (c) Off-site tracking of industrial or waste materials or sediment where vehicles enter or exit the site;
 - (d) Tracking or blowing of raw, final, or waste materials from areas of no exposure to exposed areas;
 - (e) Evidence of, or the potential for, pollutants entering the drainage system;
 - (f) Evidence of pollutants discharging to surface waters at all facility outfalls, and the condition of and around the outfall, including flow dissipation measures to prevent scouring;

G. Storm Water Management

3. **Storm Water Pollution Prevention Plan (Continued)**

- (g) Review of storm water related training performed, inspections completed, maintenance performed, quarterly visual examinations, and effective operation of control measures;
 - (h) Results of both visual and any analytical monitoring done during the past year shall be taken into consideration during the evaluation.
- (2) Based on the results of the evaluation, the SWPPP shall be modified as necessary (e.g., show additional controls on the map required by **Part I.G.3.b(2)(c)**; revise the description of controls required by **Part I.G.3.b(6)** to include additional or modified control measures designed to correct problems identified). Revisions to the SWPPP shall be completed within 30 days following the evaluation, unless permission for a later date is granted in writing by the Director. If existing control measures need to be modified or if additional control measures are necessary, implementation shall be completed before the next anticipated storm event, if practicable, but not more than 60 days after completion of the comprehensive site evaluation, unless permission for a later date is granted in writing by the Department;
- (3) Compliance Evaluation Report. A report shall be written summarizing the scope of the evaluation, name(s) of personnel making the evaluation, the date of the evaluation, and all observations relating to the implementation of the SWPPP, including elements stipulated in **Part I.G.3.d(1)(a)** through **(h)** above. Observations shall include such things as: the location(s) of discharges of pollutants from the site; location(s) of previously unidentified sources of pollutants; location(s) of control measures that need to be maintained or repaired; location(s) of failed control measures that need replacement; and location(s) where additional control measures are needed. The report shall identify any incidents of noncompliance that were observed. Where a report does not identify any incidents of noncompliance, the report shall contain a certification that the facility is in compliance with the SWPPP and this permit. The report shall be signed in accordance with **Part II.K** "Signatory Requirements" in "Conditions Applicable to all VPDES Permits" and maintained with the SWPPP.

G. Storm Water Management

3. **Storm Water Pollution Prevention Plan (Continued)**

- (4) Where compliance evaluation schedules overlap with routine inspections required under **Part I.G.3.b(6)(b)(v)** (Routine Facility Inspections), the annual compliance evaluation may be used as one of the routine inspections.

e. Signature and Plan Review

- (1) Signature and Location. The SWPPP including revisions to the SWPPP to document any corrective actions taken as required by **Part I.G.2(i)** (Corrective Actions) shall be signed in accordance with **Part II.K** "Signatory Requirements" in "Conditions Applicable to All VPDES Permits" dated and retained on-site at the facility covered by this permit in accordance with **Part II.B.2** "Records" in "Conditions Applicable to All VPDES Permits." All other changes to the SWPPP, and other permit compliance documentation, shall be signed and dated by the person preparing the change or documentation.
- (2) Availability. The permittee shall retain a copy of the current SWPPP, required by this permit at the facility, and it shall be immediately available to the Department, EPA, or the operator of an MS4 receiving discharges from the site at the time of an on-site inspection or upon request.
- (3) Required Modifications. The permittee shall modify the SWPPP whenever necessary to address any corrective actions required by **Part I.G.2(i)(1)** (Data Exceeding Benchmark Concentration Values) or **Part I.G.2(i)** (Corrective Actions). Changes to the SWPPP shall be made in accordance with the corrective action deadlines in **Part I.G.2(i)(1)** and **Part I.G.2(i)** and shall be signed and dated in accordance with **Part II.K** "Signatory Requirements" in "Conditions Applicable to all VPDES Permits".

The Director may notify the permittee at any time that the SWPPP, control measures, or other components of the facility's storm water program do not meet one or more of the requirements of this permit. The notification shall identify specific provisions of the permit that are not being met and may include required modifications to the storm water program, additional monitoring requirements, and special reporting requirements. The permittee shall make any required changes

G. Storm Water Management

3. **Storm Water Pollution Prevention Plan (Continued)**

to the SWPPP within 60 days of receipt of such notification, unless permission for a later date is granted in writing by the Director, and shall submit a written certification to the Director that the requested changes have been made.

f. Maintaining an Updated SWPPP

(1) The permittee shall amend the SWPPP, as appropriate whenever:

- (a) There is construction or a change in design, operation, or maintenance at the facility that has a significant effect on the discharge, or the potential for the discharge of pollutants from the facility;
- (b) Routine inspections or compliance evaluations determine that there are deficiencies in the control measures;
- (c) Inspections by local, state, or federal officials determine that modifications to the SWPPP are necessary;
- (d) There is a spill, leak, or other release at the facility; or
- (e) There is an unauthorized discharge from the facility.

(2) SWPPP modifications shall be made within 30 calendar days after discovery, observation, or event requiring a SWPPP modification. Implementation of new or modified control measures (distinct from regular preventive maintenance of existing control measures described in **Part I.G.3.b(6)(b)(iii)** (Preventative Maintenance) shall be initiated before the next storm event if possible, but no later than 60 days after discovery, or as otherwise provided or approved by the Director. The amount of time taken to modify a control measures or implement additional control measures shall be documented in the SWPPP.

(3) If the SWPPP modification is based on a release or unauthorized discharge, include a description and date of the release, the circumstances leading to the release, actions taken in response to the release, and measures to prevent the recurrence of such releases. Unauthorized releases and discharges are subject to the reporting

G. Storm Water Management

3. **Storm Water Pollution Prevention Plan (Continued)**

requirements of **Part II.G** "Reports of Unauthorized Discharges" in "Conditions Applicable to All Permits" of this permit.

4. **Sector Specific Storm Water Pollution Prevention Plan Requirements: Sector T Treatment Works**

In addition to the requirements in **Part I.G.3**, the SWPPP shall include, at a minimum, the following items:

a. Site Description

- (1) **Site Map.** The site map shall identify where any of the following may be exposed to runoff: grit, screenings and other solids handling, storage or disposal areas; sludge drying beds; dried sludge piles; compost piles; septage or hauled waste receiving station; and storage areas for process chemicals, petroleum products, solvents, fertilizers, herbicides and pesticides.
- (2) **Summary of Potential Pollutant Sources.** The plan shall include a description of the potential pollutant sources from the following activities, as applicable: grit, screenings and other solids handling, storage or disposal areas; sludge drying beds; dried sludge piles; compost piles; septage or hauled waste receiving station; and access roads and rail lines.

b. Storm Water Controls

- (1) **Control Measures.** In addition to the other control measures considered, the following measures shall be considered: routing storm water to the treatment works; or covering exposed materials (i.e., from the following areas: grit, screenings and other solids handling, storage or disposal areas; sludge drying beds; dried sludge piles; compost piles; septage or hauled waste receiving station).
- (2) **Inspections.** The following areas shall be included in all inspections: access roads and rail lines, grit, screenings and other solids handling, storage or disposal areas; sludge drying beds; dried sludge piles; compost piles; septage or hauled waste receiving station areas.

G. Storm Water Management

4. **Sector Specific Storm Water Pollution Prevention Plan Requirements: Sector T Treatment Works**

- (3) Employee Training. Employee training shall, at a minimum, address the following areas when applicable to a facility: petroleum product management; process chemical management; spill prevention and control; fueling procedures; general good housekeeping practices; proper procedures for using fertilizers, herbicides and pesticides.

PART II - CONDITIONS APPLICABLE TO ALL VPDES PERMITS

A. Monitoring

1. Samples and measurements required by this permit shall be taken at the permit designated or approved location and be representative of the monitored activity.
 - a. Monitoring shall be conducted according to procedures approved under Title 40 Code of Federal Regulations Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this permit.
 - b. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will ensure accuracy of measurements.
 - c. Samples taken shall be analyzed in accordance with 1 VAC 30-45, Certification for Noncommercial Environmental Laboratories, or 1 VAC 30-46, Accreditation for Commercial Environmental Laboratories.
2. Any pollutant specifically addressed by this permit that is sampled or measured at the permit designated or approved location more frequently than required by this permit shall meet the requirements in A.1.a through c above and the results of this monitoring shall be included in the calculations and reporting required by this permit.
3. Operational or process control samples or measurements shall not be taken at the designated permit sampling locations. Operational or process control samples or measurements do not need to follow procedures approved under Title 40 Code of Federal Regulations Part 136 or be analyzed in accordance with 1 VAC 30-45, Certification for Noncommercial Environmental Laboratories, or 1 VAC 30-46, Accreditation for Commercial Environmental Laboratories.

B. Records

1. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) and time(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
2. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all recordings for continuous monitoring instrumentation, copies of

B. Records (Continued)

all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee, or as requested by the Board.

C. Reporting Monitoring Results

1. The permittee shall submit the results of the monitoring required by this permit not later than the 10th day of the month after monitoring takes place, unless another reporting schedule is specified elsewhere in this permit. Monitoring results shall be submitted to:

Virginia Department of Environmental Quality
Blue Ridge Regional Office
3019 Peters Creek Road
Roanoke VA 24019-2738

2. Monitoring results shall be reported on a Discharge Monitoring Report (DMR) or on forms provided, approved or specified by the Department.
3. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

D. Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

E. Compliance Schedule Reports

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

F. Unauthorized Discharges

Except in compliance with this permit, or another permit issued by the Board, it shall be unlawful for any person to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances; or

F. Unauthorized Discharges (Continued)

2. Otherwise alter the physical, chemical or biological properties of such state waters and make them detrimental to the public health, or to animal or aquatic life, or to the use of such waters for domestic or industrial consumption, or for recreation, or for other uses.

G. Reports of Unauthorized Discharges

Any permittee who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance into or upon state waters in violation of Part II F; or who discharges or causes or allows a discharge that may reasonably be expected to enter state waters in violation of Part II.F, shall notify the Department of the discharge immediately upon discovery of the discharge, but in no case later than 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the Department, within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;
2. The cause of the discharge;
3. The date on which the discharge occurred;
4. The length of time that the discharge continued;
5. The volume of the discharge;
6. If the discharge is continuing, how long it is expected to continue;
7. If the discharge is continuing, what the expected total volume of the discharge will be; and
8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this permit.

Discharges reportable to the Department under the immediate reporting requirements of other regulations are exempted from this requirement.

H. Reports of Unusual or Extraordinary Discharges

If any unusual or extraordinary discharge including a bypass or upset should occur from a treatment works and the discharge enters or could be expected to enter state waters, the permittee shall promptly notify, in no case later than 24 hours, the Department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse affects on aquatic life and the known number of fish killed. The permittee shall reduce the report to writing and shall submit it to the Department within five days of discovery of the discharge in accordance with Part II.I.2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;
2. Breakdown of processing or accessory equipment;
3. Failure or taking out of service some or all of the treatment works; and
4. Flooding or other acts of nature.

I. Reports of Noncompliance

The permittee shall report any noncompliance which may adversely affect state waters or may endanger public health.

I. Reports of Noncompliance (Continued)

1. An oral report shall be provided within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which shall be reported within 24 hours under this paragraph:
 - a. Any unanticipated bypass; and
 - b. Any upset which causes a discharge to surface waters.
2. A written report shall be submitted within 5 days and shall contain:
 - a. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
 - c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Board may waive the written report on a case-by-case basis for reports of noncompliance under Part II.1 if the oral report has been received within 24 hours and no adverse impact on state waters has been reported.

3. The permittee shall report all instances of noncompliance not reported under Parts II.1.1 or 2, in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Part II.1.2.

NOTE: The immediate (within 24 hours) reports required in Parts II G, H and I shall be made to the Department's Regional Office by e-mail (proprep@deq.virginia.gov) or phone (804-527-5020). For reports outside normal working hours (before 8:30 am and after 5:00 pm Monday through Friday and anytime Saturday through Sunday), submit an e-mail message (preferred) or leave a phone message and this shall fulfill the immediate reporting requirement. Immediate notification shall include the following at a minimum:

- Date and time of event;
- Location of event;
- Estimate of volume discharged;
- Nearest receiving stream or affected water body; and
- Contact name and phone number

For emergencies, the Virginia Department of Emergency Management maintains a 24 hour telephone service at 1-800-468-8892.

J. Notice of Planned Changes

1. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

J. Notice of Planned Changes (Continued)

- a. The permittee plans alteration or addition to any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:
 - (1) After promulgation of standards of performance under Section 306 of Clean Water Act which are applicable to such source; or
 - (2) After proposal of standards of performance in accordance with Section 306 of Clean Water Act which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal;
 - b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations nor to notification requirements specified elsewhere in this permit; or
 - c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
2. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

K. Signatory Requirements

1. Applications. All permit applications shall be signed as follows:
 - a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - c. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a public agency includes: (i) The chief executive officer of the agency, or (ii) a

K. Signatory Requirements (Continued)

senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

2. Reports, etc. All reports required by permits, and other information requested by the Board shall be signed by a person described in Part II.K.1, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Part II.K.1;
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
 - c. The written authorization is submitted to the Department.
3. Changes to authorization. If an authorization under Part II.K.2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II.K.2 shall be submitted to the Department prior to or together with any reports, or information to be signed by an authorized representative.
4. Certification. Any person signing a document under Parts II.K.1 or 2 shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

L. Duty to Comply

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the State Water Control Law and the Clean Water Act, except that noncompliance with certain provisions of this permit may constitute a violation of the State Water Control Law but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this permit has not yet been modified to incorporate the requirement.

M. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. All permittees with a currently effective permit shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Board. The Board shall not grant permission for applications to be submitted later than the expiration date of the existing permit.

N. Effect of a Permit

This permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of federal, state or local law or regulations.

O. State Law

Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by Section 510 of the Clean Water Act. Except as provided in permit conditions on "bypassing" (Part II.U), and "upset" (Part II.V) nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

Q. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

R. Disposal of Solids or Sludges

Solids, sludges, or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering state waters.

S. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

T. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

U. Bypass

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts II.U.2 and U.3.
2. Notice
 - a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least ten days before the date of the bypass.
 - b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II.I.
3. Prohibition of bypass.
 - a. Bypass is prohibited, and the Board may take enforcement action against a permittee for bypass, unless:
 - (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (3) The permittee submitted notices as required under Part II.U.2.
 - b. The Board may approve an anticipated bypass, after considering its adverse effects, if the Board determines that it will meet the three conditions listed above in Part II.U.3.a.

V. Upset

1. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part II.V.2 are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.

V. Upset (Continued)

2. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - b. The permitted facility was at the time being properly operated;
 - c. The permittee submitted notice of the upset as required in Part II.I; and
 - d. The permittee complied with any remedial measures required under Part II.S.
3. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

W. Inspection and Entry

The permittee shall allow the Director, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act and the State Water Control Law, any substances or parameters at any location.

W. Inspection and Entry (Continued)

For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. Permit Actions

Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. Transfer of permits

1. Permits are not transferable to any person except after notice to the Department. Except as provided in Part II.Y.2, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made, to identify the new permittee and incorporate such other requirements as may be necessary under the State Water Control Law and the Clean Water Act.

Y. Transfer of permits (Continued)

2. As an alternative to transfers under Part II.Y.1, this permit may be automatically transferred to a new permittee if:
 - a. The current permittee notifies the Department at least 30 days in advance of the proposed transfer of the title to the facility or property;
 - b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
 - c. The Board does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part II.Y.2.b.

Z. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

ATTACHMENT A **DEPARTMENT OF ENVIRONMENTAL QUALITY** **WATER QUALITY CRITERIA MONITORING**

Effective January 1, 2012, all analyses shall be in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories.

A listing of Virginia Environmental Laboratory Accreditation Program (VELAP) certified and/or accredited laboratories can be found at the following website:

<http://www.dqs.state.va.us/DivisionofConsolidatedLaboratoryServices/Services/EnvironmentalLaboratoryCertification/tabid/1059/Default.aspx>

Please be advised that additional water quality analyses may be necessary and/or required for permitting purposes.

| CASRN | CHEMICAL | EPA ANALYSIS NO. | QUANTIFICATION LEVEL ⁽¹⁾ | REPORTING RESULTS | SAMPLE TYPE ⁽²⁾ | SAMPLE FREQUENCY |
|----------------------------------|--|------------------|-------------------------------------|-------------------|----------------------------|------------------|
| METALS | | | | | | |
| 7440-36-0 | Antimony, Total Recoverable | (3) | 20 | | C | 3 /5 YR |
| 7440-38-2 | Arsenic, Total Recoverable | (3) | 20 | | C | 3 /5 YR |
| 7440-41-7 | Beryllium, Total Recoverable | (3) | (4) | | C | 3 /5 YR |
| 7440-43-9 | Cadmium, Total Recoverable | (3) | 3.0 | | C | 3 /5 YR |
| 16065-83-1 | Chromium III, Total Recoverable ⁽⁵⁾ | (3) | 10 | | C | 3 /5 YR |
| 18540-29-9 | Chromium VI, Total Recoverable ⁽⁵⁾ | (3) | 10 | | C | 3 /5 YR |
| 7440-50-8 | Copper, Total Recoverable | (3) | 5.0 | | C | 3 /5 YR |
| 7439-92-1 | Lead, Total Recoverable | (3) | 10 | | C | 3 /5 YR |
| 7439-97-6 | Mercury, Total Recoverable | (3) | 3 | | C | 3 /5 YR |
| 7440-02-0 | Nickel, Total Recoverable | (3) | 10 | | C | 3 /5 YR |
| 7782-49-2 | Selenium, Total Recoverable | (3) | 10 | | C | 3 /5 YR |
| 7440-22-4 | Silver, Total Recoverable | (3) | 1.0 | | C | 3 /5 YR |
| 7440-28-0 | Thallium, Total Recoverable | (3) | (4) | | C | 3 /5 YR |
| 7440-66-6 | Zinc, Total Recoverable | (3) | 50 | | C | 3 /5 YR |
| BASE NEUTRAL EXTRACTABLES | | | | | | |
| 83-32-9 | Acenaphthene | 610/625 | 10.0 | | C | 3 /5 YR |
| 208-96-5 | Acenaphthylene | 610/625 | 10.0 | | C | 3 /5 YR |
| 120-12-7 | Anthracene | 610/625 | 10.0 | | C | 3 /5 YR |
| 92-87-5 | Benzidine | 625 | (4) | | C | 3 /5 YR |
| 56-55-3 | Benzo (a) anthracene | 610/625 | 10.0 | | C | 3 /5 YR |
| 50-32-8 | Benzo(a)pyrene | 610/625 | 10.0 | | C | 3 /5YR |

| CASRN | CHEMICAL | EPA ANALYSIS NO. | QUANTIFICATION LEVEL ⁽¹⁾ | REPORTING RESULTS | SAMPLE TYPE ⁽²⁾ | SAMPLE FREQUENCY |
|----------------------------------|--|---------------------|-------------------------------------|-------------------|----------------------------|------------------|
| BASE NEUTRAL EXTRACTABLES | | | | | | |
| 205-99-2 | 3,4 Benzo-fluoranthene | 610/625 | 10.0 | | C | 3 /5 YR |
| 191-24-2 | Benzo (GHI) Perylene | 610/625 | 10.0 | | C | 3 /5 YR |
| 207-08-9 | Benzo (K) Fluoranthene | 610/625 | 10.0 | | C | 3 /5 YR |
| 111-91-1 | Bis 2-Chloroethoxy Methane | 610/625 | 10.0 | | C | 3 /5 YR |
| 111-44-4 | Bis 2-Chloroethyl Ether | 625 | (4) | | C | 3 /5 YR |
| 108-60-1 | Bis 2-Chloroisopropyl Ether | 625 | (4) | | C | 3 /5 YR |
| 117-81-7 | Bis 2-Ethylhexyl Phthalate (syn. = Di-2-Ethylhexyl Phthalate) | 625 | 10.0 | | C | 3 /5 YR |
| 101-55-3 | 4-Bromophenyl Phenyl Ether | 625 | (4) | | C | 3 /5 YR |
| 85-68-7 | Butyl benzyl phthalate | 625 | 10.0 | | C | 3 /5 YR |
| 91-58-7 | 2-Chloronaphthalene | 625 | (4) | | C | 3 /5 YR |
| 7005-72-3 | 4-Chlorophenyl Phenyl Ether | 625 | (4) | | C | 3 /5 YR |
| 218-01-9 | Chrysene | 610/625 | 10.0 | | C | 3 /5 YR |
| 53-70-3 | Dibenzo (a,h) anthracene | 610/625 | 20.0 | | C | 3 /5 YR |
| 95-50-1 | 1,2-Dichlorobenzene | 602/624 | 10.0 | | C | 3 /5 YR |
| 541-73-1 | 1,3-Dichlorobenzene | 602/624 | 10.0 | | C | 3 /5 YR |
| 106-46-7 | 1,4-Dichlorobenzene | 602/624 | 10.0 | | C | 3 /5 YR |
| 91-94-1 | 3,3-Dichlorobenzidine | 625 | (4) | | C | 3 /5 YR |
| 84-66-2 | Diethyl phthalate | 625 | 10.0 | | C | 3 /5 YR |
| 131-11-3 | Dimethyl phthalate | 625 | (4) | | C | 3 /5 YR |
| 84-74-2 | Di-n-butyl Phthalate (synonym = Dibutyl Phthalate) | 625 | 10.0 | | C | 3 /5 YR |
| 117-84-0 | Di-n-octyl Phthalate | 625 | (4) | | C | 3 /5 YR |
| 121-14-2 | 2,4-Dinitrotoluene | 625 | 10.0 | | C | 3 /5 YR |
| 606-20-2 | 2,6-Dinitrotoluene | 625 | (4) | | C | 3 /5 YR |
| 122-66-7 | 1,2-Diphenylhydrazine | 625/ 8270C/8270D | (4) | | C | 3 /5 YR |
| 206-44-0 | Fluoranthene | 610/625 | 10.0 | | C | 3 /5 YR |
| 86-73-7 | Fluorene | 610/625 | 10.0 | | C | 3 /5 YR |
| 118-74-1 | Hexachlorobenzene | 625 | (4) | | C | 3 /5 YR |
| 87-68-3 | Hexachlorobutadiene | 625 | (4) | | C | 3 /5 YR |

| CASRN | CHEMICAL | EPA ANALYSIS NO. | QUANTIFICATION LEVEL ⁽¹⁾ | REPORTING RESULTS | SAMPLE TYPE ⁽²⁾ | SAMPLE FREQUENCY |
|----------------------------------|--|------------------|-------------------------------------|-------------------|----------------------------|------------------|
| BASE NEUTRAL EXTRACTABLES | | | | | | |
| 77-47-4 | Hexachlorocyclopentadiene | 625 | (4) | | C | 3 /5 YR |
| 67-72-1 | Hexachloroethane | 625 | (4) | | C | 3 /5 YR |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 610/625 | 20.0 | | C | 3 /5 YR |
| 78-59-1 | Isophorone | 625 | 10.0 | | C | 3 /5 YR |
| 91-20-3 | Naphthalene | (3) | (4) | | C | 3 /5 YR |
| 98-95-3 | Nitrobenzene | 625 | 10.0 | | C | 3 /5 YR |
| 621-64-7 | N-Nitrosodi-n-propylamine | 625 | (4) | | C | 3 /5 YR |
| 86-30-6 | N-Nitrosodiphenylamine | 625 | (4) | | C | 3 /5 YR |
| 85-01-8 | Phenanthrene | (3) | (4) | | C | 3 /5 YR |
| 129-00-0 | Pyrene | 610/625 | 10.0 | | C | 3 /5 YR |
| 120-82-1 | 1,2,4-Trichlorobenzene | 625 | 10.0 | | C | 3 /5 YR |
| VOLATILE | | | | | | |
| 107-02-8 | Acrolein | 624 | (4) | | G | 3 /5 YR |
| 107-13-1 | Acrylonitrile | 624 | (4) | | G | 3 /5 YR |
| 71-43-2 | Benzene | 602/624 | 10.0 | | G | 3 /5 YR |
| 75-25-2 | Bromoform | 624 | 10.0 | | G | 3 /5 YR |
| 56-23-5 | Carbon Tetrachloride | 624 | 10.0 | | G | 3 /5 YR |
| 108-90-7 | Chlorobenzene (synonym = Monochlorobenzene) | 602/624 | 50.0 | | G | 3 /5 YR |
| 124-48-1 | Chlorodibromomethane | 624 | 10.0 | | G | 3 /5 YR |
| 75-00-3 | Chloroethane | (3) | (4) | | G | 3 /5 YR |
| 110-75-8 | 2-Chloro-Ethylvinyl Ether | (3) | (4) | | G | 3 /5 YR |
| 67-66-3 | Chloroform | 624 | 10.0 | | G | 3 /5 YR |
| 75-27-4 | Dichlorobromomethane | 624 | 10.0 | | G | 3 /5 YR |
| 75-34-3 | 1,1-Dichloroethane | (3) | (4) | | G | 3 /5 YR |
| 107-06-2 | 1,2-Dichloroethane | 624 | 10.0 | | G | 3 /5 YR |
| 75-35-4 | 1,1-Dichloroethylene | 624 | 10.0 | | G | 3 /5 YR |
| 156-60-5 | 1,2-trans-dichloroethylene | 624 | (4) | | G | 3 /5 YR |
| 78-87-5 | 1,2-Dichloropropane | 624 | (4) | | G | 3 /5 YR |

| CASRN | CHEMICAL | EPA ANALYSIS NO. | QUANTIFICATION LEVEL ⁽¹⁾ | REPORTING RESULTS | SAMPLE TYPE ⁽²⁾ | SAMPLE FREQUENCY |
|-------------------------|--|------------------|-------------------------------------|-------------------|----------------------------|------------------|
| VOLATILES | | | | | | |
| 542-75-6 | 1,3-Dichloropropene | 624 | (4) | | G | 3 /5 YR |
| 100-41-4 | Ethylbenzene | 602/624 | 10.0 | | G | 3 /5 YR |
| 74-83-9 | Methyl Bromide (synonym = Bromomethane) | 624 | (4) | | G | 3 /5 YR |
| 74-87-3 | Methyl Chloride | (3) | (4) | | G | 3 /5 YR |
| 75-09-2 | Methylene Chloride (synonym = Dichloromethane) | 624 | 20.0 | | G | 3 /5 YR |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | 624 | (4) | | G | 3 /5 YR |
| 127-18-4 | Tetrachloroethylene (synonym = Tetrachloroethene) | 624 | 10.0 | | G | 3 /5 YR |
| 71-55-6 | 1,1,1-Trichloroethane | 624 | (4) | | G | 3 /5 YR |
| 10-88-3 | Toluene | 602/624 | 10.0 | | G | 3 /5 YR |
| 79-00-5 | 1,1,2-Trichloroethane | 624 | (4) | | G | 3 /5 YR |
| 79-01-6 | Trichloroethylene (synonym = Trichloroethene) | 624 | 10.0 | | G | 3 /5 YR |
| 75-01-4 | Vinyl Chloride | 624 | 10.0 | | G | 3 /5 YR |
| ACID EXTRACTABLE | | | | | | |
| 59-50-7 | p-Chloro-m-Cresol | 625 | 10.0 | | C | 3 /5 YR |
| 95-57-8 | 2-Chlorophenol | 625 | 10.0 | | C | 3 /5 YR |
| 120-83-2 | 2,4 Dichlorophenol | 625 | 10.0 | | C | 3 /5 YR |
| 105-67-9 | 2,4 Dimethylphenol | 625 | 10.0 | | C | 3 /5 YR |
| 534-52-1 | 4,6 Dinitro-o-Cresol | 625 | (4) | | C | 3 /5 YR |
| 51-28-5 | 2,4-Dinitrophenol | 625 | (4) | | C | 3 /5 YR |
| 88-75-5 | 2-Dinitrophenol | 625 | (4) | | C | 3 /5 YR |
| 100-02-7 | 4-Nitrophenol | 625 | (4) | | C | 3 /5 YR |
| 87-86-5 | Pentachlorophenol | 625 | 50.0 | | C | 3 /5 YR |
| 108-95-2 | Phenol | 625 | 10.0 | | C | 3 /5 YR |
| 88-06-2 | 2,4,6-Trichlorophenol | 625 | 10.0 | | C | 3 /5 YR |
| MISCELLANEOUS | | | | | | |
| 776-41-7 | Ammonia as NH ₃ -N | 350.1 | 200 | | C | 3 /5 YR |
| 57-12-5 | Cyanide, Free ⁽⁶⁾ | ASTM 4282-02 | 10.0 | | G | 3 /5 YR |

| CASRN | CHEMICAL | EPA ANALYSIS NO. | QUANTIFICATION LEVEL ⁽¹⁾ | REPORTING RESULTS | SAMPLE TYPE ⁽²⁾ | SAMPLE FREQUENCY |
|----------------------|---------------------------------|------------------|-------------------------------------|-------------------|----------------------------|------------------|
| MISCELLANEOUS | | | | | | |
| 100-41-4 | Hardness | (3) | (4) | | C | 3 /5 YR |
| | Oil and Grease | (3) | 5.0 | | G | 3 /5 YR |
| | Nitrate Plus Nitrite Nitrogen | (3) | (4) | | C | 3 /5 YR |
| | Total Dissolved Solids (mg/L) | (3) | (4) | | C | 3 /5 YR |
| | Total Phenolic Compounds | (4) | (4) | | G | 3 /5 YR |
| | Total PCBs (dry weather sample) | (7) | (7) | | C | 1 /5 YR |

Name of Principal Executive Officer or Authorized Agent & Title

Signature of Principal Executive Officer or Authorized Agent & Date

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. Sec. 1001 and 33 U.S.C. Sec. 1319. (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 months and 5 years.)

FOOTNOTES:

- (1) Quantification level (QL) means the minimum levels, concentrations, or quantities of a target variable (e.g. target analyte) that can be reported with a specified degree of confidence in accordance with 1 VAC 30-45, Certification for Noncommercial Environmental Laboratories, or 1 VAC 30-46, Accreditation for Commercial Environmental Laboratories.

The quantification levels indicated for the metals are actually Specific Target Values developed for this permit. The Specific Target Value is the approximate value that may initiate a wasteload allocation analysis. Target values are not wasteload allocations or effluent limitations. The Specific Target Values are subject to change based on additional information such as hardness data, receiving stream flow, and design flows.

Units for the quantification level are micrograms/liter unless otherwise specified.

Quality control and quality assurance information (i.e. laboratory certificates of analysis) shall be submitted to document that the required quantification level has been attained.

- (2) Sample Type

G = Grab = An individual sample collected in less than 15 minutes. Substances specified with "grab" sample type shall only be collected as grabs. The permittee may analyze multiple grabs and report the average results provided that the individual grab results are also reported. For grab metals samples, the individual samples shall be filtered and preserved immediately upon collection.

C = Composite = A 24-hour composite unless otherwise specified. The composite shall be a combination of individual samples, taken proportional to flow, obtained at hourly or smaller time intervals. The individual samples may be of equal volume for flows that do not vary by +/- 10 percent over a 24-hour period.

- (3) A specific analytical method is not specified; however, an appropriate method to meet the QL shall be selected from (i) any approved method presented in 40 CFR Part 136 or (ii) any alternative EPA approved method provided that all analyses are in accordance with 1 VAC 30-45 (Certification for Noncommercial Environmental Laboratories), or 1 VAC 30-46 (Accreditation for Commercial Laboratories).
- (4) The QL is at the discretion of the permittee. If the test result is less than the method QL, a "<[QL]" shall be reported where the actual analytical test QL is substituted for [QL].
- (5) Both Chromium III and Chromium VI may be measured by the total chromium analysis. The total chromium analytical test QL shall be less than or equal to the lesser of the Chromium III or Chromium VI method QL listed above. If the result of the total chromium analysis is less than the analytical test QL, both Chromium III and Chromium VI can be reported as "<[QL]", where the actual analytical test QL is substituted for [QL].
- (6) Free cyanide may be measured by the total cyanide analysis. The total cyanide analytical test QL shall be less than or equal to the free cyanide method QL listed above. If the result of the total cyanide analysis is less than the analytical test QL, free cyanide can be reported as "<[QL]", where the actual analytical test QL is substituted for [QL].
- (7) Monitoring and analysis shall be conducted with the most current version of EPA Method 1668, congener specific results as specified in the PCB Point Source Monitoring Guidance. One dry weather sample shall be collected according to PCB Guidance No. 09-2001, Appendix C (Sample Collection Methods for Effluent and Storm Water) and/or its amendments.

Sampling shall be conducted in accordance with the current approved protocol. Any changes to sampling protocol shall be submitted to DEQ's Blue Ridge Regional Office for review and approval.

The data shall be submitted according to Appendix E (Reporting Requirements for Analytical (PCB) Data Generated Using EPA Method 1668) of TMDL Guidance Memo No.09-2001, *Guidance for Monitoring Point Sources for TMDL Development Using Low-level PCB Method 1668* and/or its amendments. GM09-2001, Appendix E, Attachment 2 indicates data are to be submitted directly to the TMDL Program at DEQ's Blue Ridge Regional Office in Richmond. However, the data shall be submitted to DEQ's Blue Ridge Regional Office, which will record receipt of data before forwarding to DEQ's Central Office in Richmond. The submittal shall include the unadjusted and appropriately quantified individual PCB congener analytical results. Additionally, laboratory and field QA/QC documentation and results shall be reported. Total PCBs are to be completed as the summation of the reported, quantified congeners.

ATTACHMENT B – NOTICE AND NECESSARY INFORMATION – Class B Pathogen Reduction
Bulk biosolids notification requirements (9 VAC 25-31-530 F and G and 9 VAC 25-32 G and H)
Part I – To Be Completed by PREPARERS of biosolids or industrial residuals and provided to the recipient
of the residuals who land applier or prepares those residuals

Facility Name: _____ Permit Number: _____

A. Please provide pollutant concentrations

Sample Date(s): _____ Number of Samples: _____

| | Concentration (mg/kg) Dry Weight | | Pollutant Concentrations | Ceiling Concentrations* |
|----------------|-------------------------------------|------------|-----------------------------|----------------------------|
| | Monthly Avg. | Daily Max. | Monthly Average | Daily Maximum |
| Arsenic | | | 41 mg/kg | 75 mg/kg |
| Cadmium | | | 39 mg/kg | 85 mg/kg |
| Copper | | | 1500 mg/kg | 4300 mg/kg |
| Lead | | | 300 mg/kg | 840 mg/kg |
| Mercury | | | 17 mg/kg | 57 mg/kg |
| Molybdenum† | | | NL | 75 mg/kg |
| Nickel | | | 420 mg/kg | 420 mg/kg |
| Selenium | | | 100 mg/kg | 100 mg/kg |
| Zinc | | | 2800 mg/kg | 7500 mg/kg |
| Total Nitrogen | | | N/A | N/A |

* Sludge may not be land applied if any pollutant exceeds these values.

† The monthly average concentration for molybdenum is currently under study by USEPA. Research suggests that a monthly average molybdenum concentration below 40 mg/kg may be appropriate to reduce the risk of copper deficiency in grazing animals.

B. Class B Pathogen Reduction (9 VAC 25-31-710-B & 9VAC25-32-675-B)

☐ Alternative 1: Fecal coliform testing -geometric mean of 7 samples

☐ Alternative 2: Process to Significantly Reduce Pathogens (PSRP) - if selected, indicate process below:

Process: ☐ anaerobic digestion ☐ aerobic digestion ☐ alkaline stabilization ☐ air drying ☐ composting
☐ other _____

C. Vector Attraction Reduction (9 VAC 25-31-720 & 9VAC25-32-685)

___ Option 1: ≥ 38% volatile solids reduction

___ Option 2: anaerobic 40 day bench test

___ Option 3: aerobic 30 day bench test

___ Option 4: Specific Oxygen Uptake Rate (SOUR) test

___ Option 5: aerobic process, 14 days @ 40°C(45°C)

___ Option 6: alkaline stabilization

___ Option 7: dry to ≥75% T.S. w/no unstabilized 1° sludges

___ Option 8: dry to ≥90% T.S.

___ No vector attraction reduction options were performed

D. Certification: *I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

Name and Official Title _____

Signature: _____ Date signed: _____

Telephone Number: _____